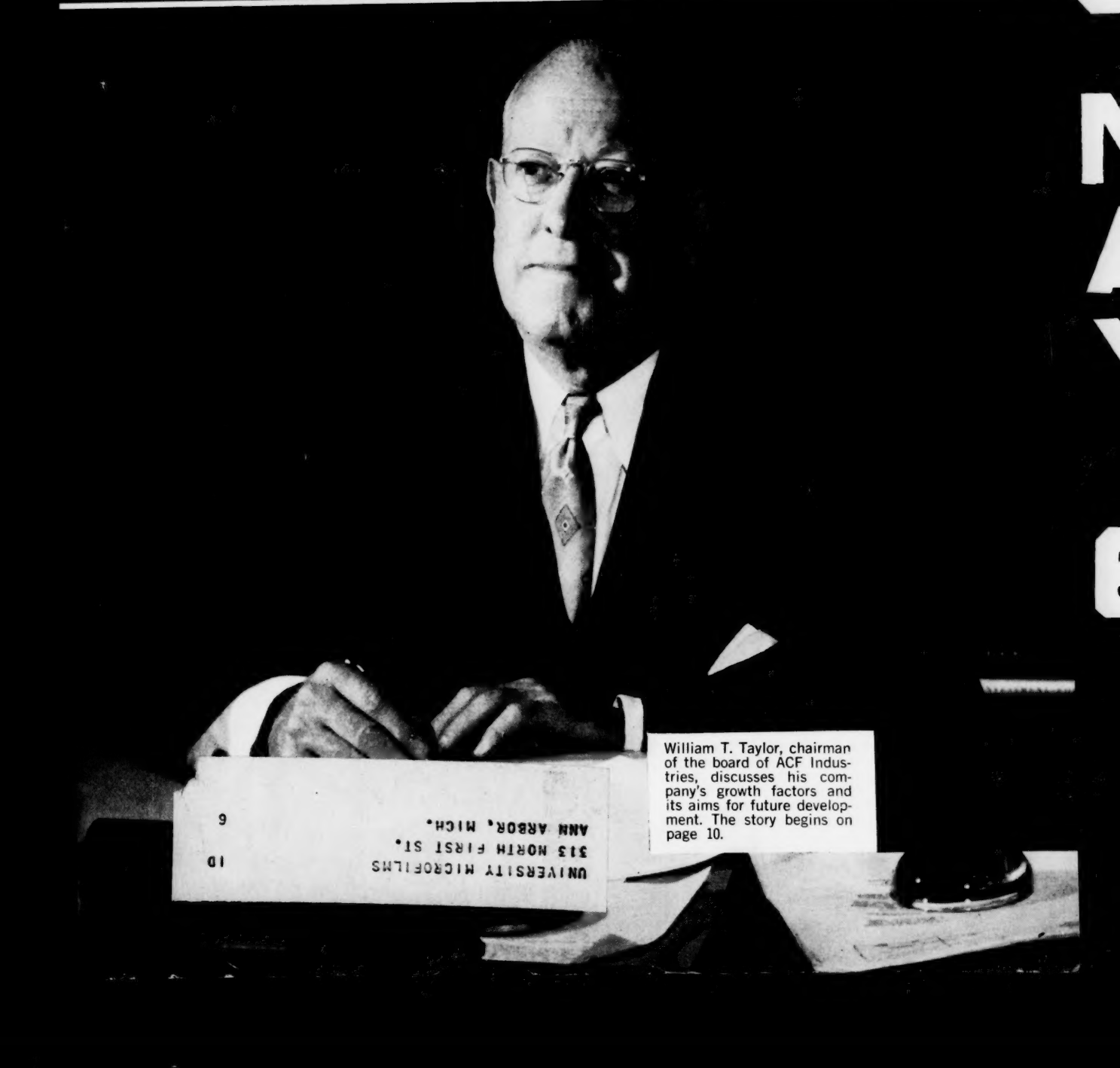
DEVELOPMENT

THE INTERNATIONAL GUIDE TO INDUSTRIAL PLANNING AND EXPANSION



William T. Taylor, chairman of the board of ACF Industries, discusses his company's growth factors and its aims for future development. The story begins on page 10.

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6
ID

picking an industrial site is a job for specialists

A large corporation usually has a staff that does nothing but make surveys and prepare detailed reports on communities under consideration. The smaller corporation without such trained personnel only too often finds that lack of experience in this specialized field may cause it to overlook some highly important factor.

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INDUSTRIAL
DEVELOPMENT
AND MANUFACTURERS RECORD

VOLUME 129 MAY 1960 NUMBER 5

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BPA

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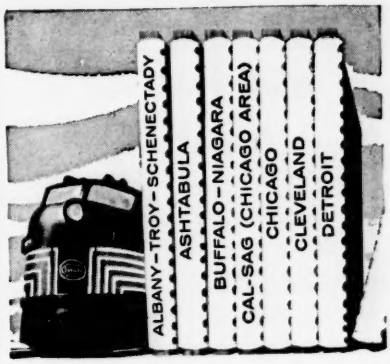

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CHECK POINTS

INDUSTRIAL DEVELOPMENT MANUFACTURERS RECORD

What are the most significant trends in industrial development? What events of recent months are of greatest importance in the realm of industrial planning and expansion? These were some of the questions we were asked to answer last month before the American Industrial Development Council, and here's a part of our statement:

Probably the most important single fact is that industrial development has emerged as one of the major factors in the cold war. The race between the United States and the Soviet Union has proven to be in many respects an industrial development contest. The current 7-year plan of the Soviet Union is designed to achieve an industrial growth rate substantially greater than ours.

No less a personage than Mr. Khrushchev has set forth the goals of the Soviet Union in terms of area and industrial development. Specific targets have been set which are impressive and challenging. This means that we who are engaged in industrial development are playing a vital role in maintaining the strength and security of our country.

Another trend of international significance which became manifest during the past year was the introduction of a competitive system in Latin America. We refer to Dr. Castro's challenge to our economic beliefs.

Heretofore we have seen a number of areas in Latin America attempt to accelerate their development by following our lead. Puerto Rico is an outstanding example of an island which has made great progress by using proven development principles pioneered in this country.

We may not endorse every technique used by Puerto Rican developers but we all congratulate them on their belief in the American economic system and the manner in which they have made it work for them. Certainly we would hope that other areas of Latin America would follow the same pattern.

Now Castro has set a different pattern. He has suggested that a Marxist approach will produce better results in developing an area.

Instead of encouraging investment, Castro states flatly that outside investment is not needed and is not wanted. He shows his contempt for the importance of business climate which we think is so vital in area development.

Of course, most developers observing the Castro regime are confident that he will not be successful. They believe he is already deeply in financial trouble. But his activity makes it imperative that all industrialists in this country and Canada redouble our efforts to prove that our method is best.

Another key factor which has been injected into our development picture during the past year is the commercial jet airliner. The past 12 months have seen the jet introduced in every major region and between the major countries of the world. Suddenly the globe has shrunk by a factor of nearly two and many patterns of trade have been quickly altered.

Also during the past year, a number of lesser trends have come to the surface. For example, the past summer marked the introduction of a new weather index by the U. S. Weather Bureau. This was an attempt to provide a more meaningful indication of climate by combining temperature and humidity into one new figure. Unfortunately, the new index told the truth about a good many areas and there were loud complaints. This is but one of the events of this nature that will continue to occur as we become more precise in area analysis and development.

Still another trend was the introduction of planned branch office areas developed in a fashion similar to industrial parks or planned industrial districts. One of the outstanding new ventures of this type, Empire Central in Dallas, is already a proven success and others are sure to follow.

In the past year we have had a rare opportunity to look at development programs and projects in many areas. Altogether your editor visited 49 of the states and most of the Canadian Provinces.

One thing that impressed us greatly is that there are outstanding development programs in every region. We don't think any area has more right to be enthusiastic about the future than does Canada. Canada is bustling from coast to coast and it is a great spot for an aggressive man to work.

For example, out in Calgary, Alberta, we saw two nicely planned industrial parks filling up very rapidly with blue-chip names. This reminded us of an industrial park we saw in the little town of Bayamon, near San Juan, Puerto Rico. Still another park somewhat off the beaten track was the one we saw being developed by Campbell Estates on the southern tip of Oahu in the Hawaiian group.

Here in the states, we had the pleasure of attending the festivities at Lewiston, Maine when Raytheon announced a huge new electronics plant — the first big break-through for Maine in this important industry. Then there was the very enjoyable trip to Colorado during the summer where we saw a new industrial park being laid out within the shadow of Pikes Peak.

In the St. Lawrence Valley we watched the ships move through the Eisenhower locks and of course everyone on the seaway knows what that has done for their morale. On Staten Island we watched the governors of New Jersey and New York cut the ribbon to launch the new Staten-Island-Brooklyn bridge which will have an important impact on the entire New York City area.

As far as geography is concerned, we believe one of the most important new trends is the expansion of organized development activity into other parts of the world. Our big foreign economic aid program has resulted in the sending of professional developers into many areas and now we are beginning to witness the feed-back.

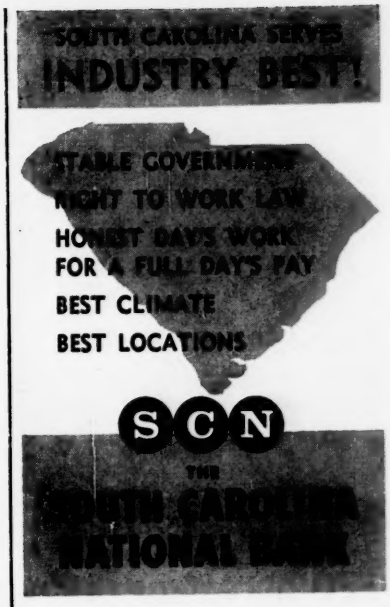
Our office is now in touch with professional development programs in most of the civilized world and in talking with expansion-minded business firms we know that many future plant location projects will be international in scope. This is a movement which is more rapid than most of us realize.

We are so impressed with this that we will be giving substantial editorial coverage to these international activities in the months ahead. We have already made plans to visit some 20 to 25 countries during the next six months to talk personally with business and development officials.

Looking back, another picture we have is the composite photograph of an industrial developer at work. It reminds us very much of the definition that the late Jim Bone used to give at AIDC meetings. For the benefit of newcomers, this is how it goes:

> "He must be a man of vision and ambition, an after-dinner speaker, night owl — work all day, stay up all night, and appear fresh the next day. Must learn to sleep anywhere and eat from two to six meals a day; inhale dust, drive through mud and rain, summer and winter, without perspiring or acquiring B.O.
>
> "Must be a man's man, a ladies' man, model husband, a father, a devoted son-in-law, a good provider — A plutocrat, democrat, republican, new dealer, old dealer, and a fast dealer — Technician, electrician, machinist, mechanic and ambidextrous.
>
> "Must be always smiling, creating good will for himself and his community, be a good correspondent, attend civic meetings, tournaments, funerals, and births — Visit old and new friends in hospitals and jails, constantly study new tricks, and in spare time look for something else to do.
>
> "Must have a good car, attractive home, belong to all clubs and lodges, have ready money for entertaining.
>
> "Must be an experienced driver, talker, liar, dancer, bridge player, poker hound, toreador, diplomat, financier, and philanthropist — An authority on palmistry, chemistry, archeology, dogs, cats, horses, blondes, brunettes, redheads and lingerie."

These are a few random reflections on what we've seen during the past few months. If previous experience is worth anything we are sure that it is nothing compared to what we are all going to witness during the months ahead. Good luck and good hunting! —H. M. C.



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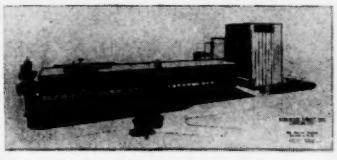

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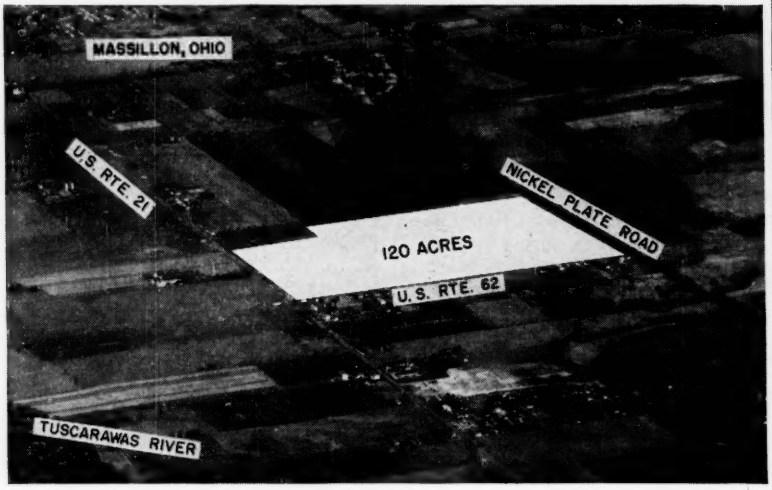

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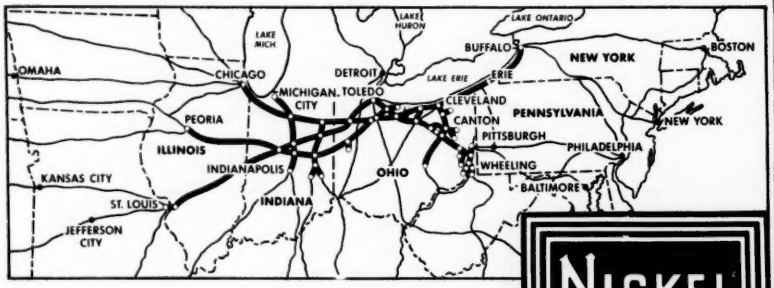
Sound interesting? We will be glad to discuss with you the advantages of this location or any other in the area served by the Nickel Plate Road. Inquiries will be handled in confidence by Industrial Development Department, Nickel Plate Road, Terminal Tower, Cleveland 1, Ohio.



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INDUSTRIAL DEVELOPMENT LETTER MANUFACTURERS RECORD

SIRS: Thank you for your prompt reply to my letter . . . regarding the Registered Community Audit on various midwest cities.

In addition to the communities on which the writer has already requested an audit, do you have or could you get this information on the towns of Chester and Beardstown, Illinois? This should complete the list of cities in which my client is interested.

May I offer my sincere thanks for your help thus far; the Audit is a most complete and excellent guide for anyone planning moves into new areas.

NAME WITHHELD

SIRS: Marion B. Folsom, Secretary-Treasurer, Eastman Kodak Company, found the cost of his firm's welfare, pensions, etc., program is FOUR times the cost in a pay-as-we-go system. He testified to this fact before the Senate Finance Commission on Social Security about February, 1950. He demanded a change to pay-as-we-go and said "NOW."

Senator Taft said (re change): "It becomes constantly more important." Automation makes it imperative!

Decreasing payrolls will cause strikes for larger increases to carry pensions which extra cost will be passed on to consumers through business activities.

Machines are not consumers. Outmoded machinery is discarded. Why not discard this unnecessarily costly system? It was foisted on us by communists through F. D. R. influenced by Eleanor.

Pay-as-we-go is not "socialism" — just a simple, efficient system financed by a small tax on gross income above $250.

Only first month's pension needed which is collected each month and all paid out again in next month — revolving method! (Less expenses, no interest to be paid out of general taxes.)

Management should understand Folsom's "FOUR" and get this unnecessary cost (not pensions) off the taxpayers and to achieve some economy in business and government, reducing inflation.

The increases in payroll deductions (i.e. ½ percent in Social Security and possibly 15 percent or 25 percent in railroads, etc.,) are passed on to consumers by all businesses and eventually, are paid by these very workers — inflation. And then unions again ask for increases in wages — a snowballing, pyramiding process even though increases are spread over three years which only obscures the whole issue.

Read p. A30 Cong. Record ("a questionable luxury.") England and Canada refused this "luxury." Why should it be inflicted on this nation? Am opposed to H. R. 10! Treasury says the loss in revenue is $365 million a year. S. 1009 is another "luxury."

Cong. Record A-1229 February, 1958 . . . Germany maintains a most generous social security system but does not accept the usual myth that such a system is linked with high, progressive taxes. The pension is now $212. but is not yet based on age.

Read A-930 Cong. Record 2-3-60. "Stamp of Inflation." Compares situation in Germany after W.W.I. (inflation in marks) and present situation in postage stamp increases in U. S.

LETTERS

Read p. 66, U. S. News and World Report 1-18-60. A national sales tax is preferable to the inflation continually created in existing pension systems.

INEZ A. WOOLF
N. 28 Madison
Spokane, Washington

▶While we endorse the principle of economy in public expenditures, we suspect reader Woolf has about as much chance of success as the Anti Gravity League from which we receive occasional letters.

* * *

SIRS: On behalf of all of the people of Colorado, I want to express appreciation to your magazine for the thoughtful article about the industrial and commercial potential of the State of Colorado. . .
I believe Colorado has a wonderful story to tell and I feel that through your magazine the Colorado story will reach the very select and influential leaders of American industry and enterprise.

STEVE McNICHOLS
Governor
State of Colorado

* * *

SIRS: Your proposed progress report on Industrial Parks is indeed a fine idea; I might add, one of many your staff has advanced over the years. However, there is a disturbing element here. You see, we represent the owners of the Elizabeth Industrial Terminal, admittedly a small park-like arrangement on only five acres, but one we are rather proud of. Started in 1959, we are 50 percent completed. All facilities on a lease, lease-purchase or sale are offered to those companies who require smaller units in a heavy industrial zone with railroad siding, and practically on top of metropolitan New York.

Your questionnaire indicated it must be returned by February 25, 1960 in order to be considered, unless of course we chose to advertise and the appropriate form was enclosed. We resent the fact that we must advertise in your magazine in order to make industry aware of our terminal in such a manner. Your letter to us, enclosed, was mailed February 29, 1960, therefore, the implication is obvious. I feel this was merely a clerical error, but nevertheless a disturbing one in view of our high regard for your magazine. May I suggest that in the future you allow plenty of time for groups to respond. . .

JACK BIRNHOLZ
Jack Birnholz & Company
Newark, New Jersey

▶Checking our records, we found the first mailing to Elizabeth Industrial Terminal was returned by POST OFFICE. Our research department finally located Mr. Birnholz's firm and sent the second questionnaire which apparently arrived after the deadline. By checking the list in the April issue (pages 22 to 48) readers can confirm that it is definitely not necessary to be an advertiser in order to be recognized.

We certainly regret Mr. Bernholz's interpretation of our covering letter. In the event anyone wishes to advertise, the advertising deadline is always at least two weeks later than the editorial deadline.

* * *

SIRS: I wonder if you would be so good to send me a couple of issues of your magazine, INDUSTRIAL DEVELOPMENT? I would like to study it, and forward it to a good friend of mine in Sweden, whose business it is to find suitable factories for all kinds of American business and manufacturing enterprises in Western Europe . . .

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American-Swedish News
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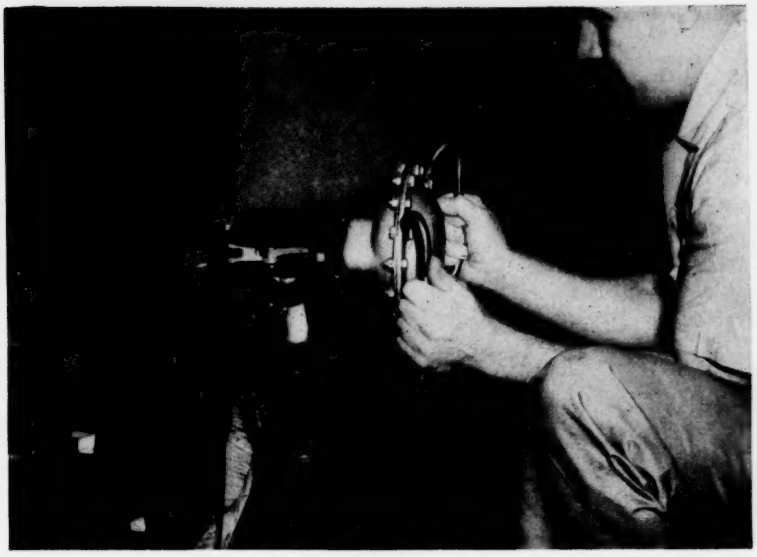
630 Fifth Avenue
New York, New York



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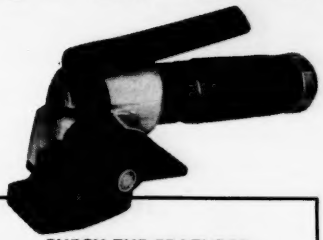
USE THE COUPON or the reader service card for complete specifications. Upon request we will also include our new catalog illustrating a complete line of strapping and packaging equipment and supplies.



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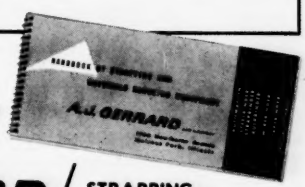

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The Prospect Ahead:

This forecast of the tremendous growth expected during the next 15 years in business, industry and the nation is the result of a year's special project undertaken by the American-Marietta Company of Chicago and is based upon a critical professional study of the most reliable data available from industry and government. Officers of the company declared: "The dimensions of the future which this study reveals are startling."

The economy of 1975 promises to be enormously larger than that of 1960; its broad dimensions can be perceived in the growth trends and momentum of today's economy.

This report seeks to translate the impetus of the present into the business opportunities of the next 15 years.

What is the outlook over the next 15 years?

Here are some of its highlights:

In tonnages and yardages of output, the economy of 1975 should be nearly the equivalent of **two** American economies of 1959. Our Gross National Product — the value of all the goods and services we produce — is today about $480 billion. By 1975 our current rate of growth will give us a G.N.P. in today's dollars of $925 billion.

The rise in standards of living will be equally dynamic. Incomes should greatly increase by 50 per cent over the next 15 years. The average American family of 1975 should enjoy an annual income of $9,400 — again, in current dollars — compared with $6,480 today.

1960 To 1975

The market potentials of 1975 also offer an unprecedented outlook. For example, the aggregate purchasing power of families with incomes over $10,000 should equal the **entire** customer market today. The demand for cement — to take an important industrial product — should more than double today's production.

These are only benchmarks for the future. They emphasize the broad trends of the economy as a whole, the scope of the prospect ahead.

Behind this prospect, however, lie the driving forces of economic expansion. What are the dynamic elements which make it possible to project the future of the economy in such striking outlines?

55 MILLION MORE PEOPLE

One basic force behind this anticipated economic growth is — people.

Since the end of World War II we have added more people to the nation than in the entire preceding decades of the Twenties and Thirties plus **half** the 1940's. And this upward trend in births has shown no signs of leveling off. Some 4,280,000 babies were born in America last year; in 1975 the number of births is predicted to be 5,900,000.

As a result we can look forward to 55 million more American citizens 15 years hence. This is an addition equivalent to all the people now living west of the Mississippi. It means that for every three consumers in the American marketplace today there will be four by 1975.

THE POPULATION IMPACT

These impressive statistics do not fully reveal the economic impact of our population boom. Adding one customer for every three imparts a tremendous leverage to many areas of demand. For example, the rise in school-age population alone will necessitate a 15-year expenditure of $36 billion to provide 900,000 additional elementary and high school classrooms.

At the same time, strong emergent demands are inherent in other sectors of our growing population. By 1975 the number of young adults in America, from age 18 to 24, will have shot up to 27.5 million — a 70 per cent increase from today. These young people provide an unusually strong market stimulus. Typically, a young married couple spends 27 per cent more than the national average for automobiles, a huge 75 per cent more for television and furniture.

Meanwhile a household-forming, child-rearing population requires more living space. It will take 22 million more homes to provide the additional space needed by a population of 235 million in 1975. More houses must be built in the next 15 years than were built in the last 30.

PEOPLE ON THE MOVE

Our population is not only expanding, it is moving. One family in every five in America changes its address every year. More and more of this movement has taken the form of an exodus from the crowded cities into the airier suburbs,

where about 70 per cent of all new home construction occurs.

These new suburban communities not only need to be built from the ground up, they must also be built from the ground down. A hundred thousand shopping centers, a billion feet of sewer pipe must come into being with the 15 million new homes to rise in the suburbs.

A growing people, creating new communities, achieving higher standards of material well-being, generates a tremendous pressure of demand. It is a powerful force behind the impetus of the American economy.

TECHNOLOGY — A DRIVING FORCE

The second great driving force behind our economic growth is technology.

We live in an age of breath-taking technological progress. It comes as a shock to realize that the average American after World War II had never seen a television screen, never bought a package of frozen food, never had his laundry washed with a non-soap detergent, never entered a glass-walled building. And these "revolutions of the commonplace" have been capped by our penetration to the core of the atom and to the shell of outer space — achievements without parallel in the chronicle of human adventure.

Yet this age of technological discovery is not over. On the contrary, every indication points to the fact that it has just begun.

THE CURVE OF RESEARCH

Behind the soaring curve of technological advance lies the impulse of research. Research is now so integral a part of business that we often overlook how recently we have begun to explore the frontiers of knowledge in a systematic fashion. Half of the $85 billion spent on research and development in the U. S. since 1941 has been spent in the last four years.

The trend of expenditures for research continues to angle sharply upward. In 1949 less than $3 billion was spent; last year that figure had increased more than four-fold; by 1975 it is likely to have passed $25 billion a year. Over the next 15 years American business and government will spend over $250 billion just to discover and perfect new products and processes.

THE IMPACT OF TECHNOLOGY

This huge effort — itself only a portion of a world-wide exploration — represents the greatest organized assault upon the unknown that society has ever undertaken. The discoveries of the coming years are certain to give rise to new industries with as rapid development as the 14 per cent annual growth rate of plastics and resins, the 27 per cent growth rate of synthetic fibers.

Equally dramatic as the impact of technology on industrial growth will be the effect of new techniques, more efficient tools in raising productivity and standards of living. Today the average family income is $6,480. By 1975 the trend of technological improvement points to an average family income of $9,400. A full third of the 70 million families of that year should earn incomes of $10,000 and over.

INCREASE IN LIVING STANDARDS

This upward movement represents not only a bigger, but a dynamically upgraded consumer market. Today the basic essentials of food, clothing, and shelter absorb $165 billion of annual consumer spending. Fifteen years from now this market for essentials will have grown to $274 billion — an increase of nearly 70 per cent. Meanwhile consumer expenditures for "discretionary" items — for personal and medical care, appliances, recreation and luxuries — will have raced on ahead, from $145 billion today to over $300 billion, a rise of 107 per cent.

A nation one-third larger in customers, 50 per cent richer per customer, presents unprecedented market opportunities. The growth in purchasing potential to 1975 is a tremendous stimulus for our continuing economic advance.

BUILDING FOR INDUSTRY

The third source of our economic momentum is building. Growth in an industrial economy means new plants and equipment for industry; houses for people; schools and universities for youth; laboratories for research; roads, airports, pipelines and a thousand other structures for the multiplying tasks of daily economic life.

Over the past ten years industry has poured a record $290 billion into one vital sector of building — plant and equipment. Great as it is, that rate of capital expenditure will not suffice to meet future needs. Over the next ten years more than $450 billion must be added to plant and equipment to meet the imperative demands of population growth and technological advance.

As fast as the nation's capital equipment grows, the need for power to operate that equipment grows even faster. Since the end of World War II electrical power use has been climbing at the unprecedented rate of 9 per cent a year. Every year, on the average, we have been adding the electrical output of a Hoover Dam and a Grand Coulee combined. Total output of electrical power has skyrocketed from 307 billion kilowatt-hours in 1947 to 790 billion today.

Yet present electrical capacity falls far short of what will be needed in 15 years. By then consumption of power will necessitate annual expenditures for utility plant and equipment double that of 1959. Demand for electrical energy flowing from the economy of 1975 will require an output of 2,200 billion kilowatt-hours.

BUILDING FOR GROWING NATION

A second source of building demand stems from the pressures of expanding population on the nation's available structures. In the suburbs alone, over $400 billion of residential construction will be needed during the next 15 years. Within the cities, the reconstruction and renewal of huge areas open another market for construction materials. Across the U. S. some 246 urban renewal projects are now underway to provide public and private housing, commercial and industrial facilities, streets, schools, parks, playgrounds and utility systems costing $2.56 billion. By 1975 the pace of urban renewal will have accelerated as much as ten times.

AMERICA'S WATER SUPPLY

A construction demand of no less importance comes from the nation's pressing needs for water. Per capita use of water, already at record levels, will rise by a third in 1975 — a demand made still more urgent by the one-third increase of popula-

tion. Meanwhile industrial use is rapidly growing; water use by chemical industries alone promises to double or triple in 15 years.

By 1975 the nation's total water needs will have mounted to a torrential 450 billion gallons — 50 per cent more than today. For optimal use of the nation's water resources, an estimated $214 billion in water facilities construction would be required. Of this amount, public sewer and water system expenditures will total at least $30 billion over the next 15 years.

HIGHWAY NEEDS

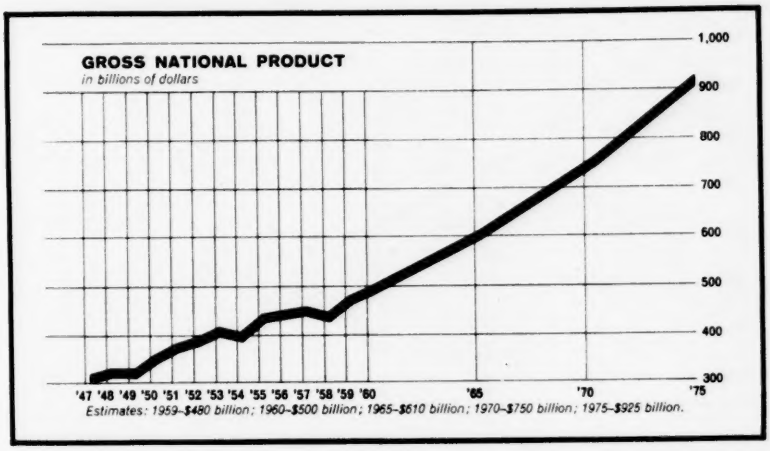
Another urgent source of building demand comes from the nation's highway needs. Over the past 12 years the number of vehicles on our roads has doubled; by 1975 the number will rise from today's 71 million to 111 million. To date, however, the number of added highway miles constructed has increased by only 4 per cent since World War II.

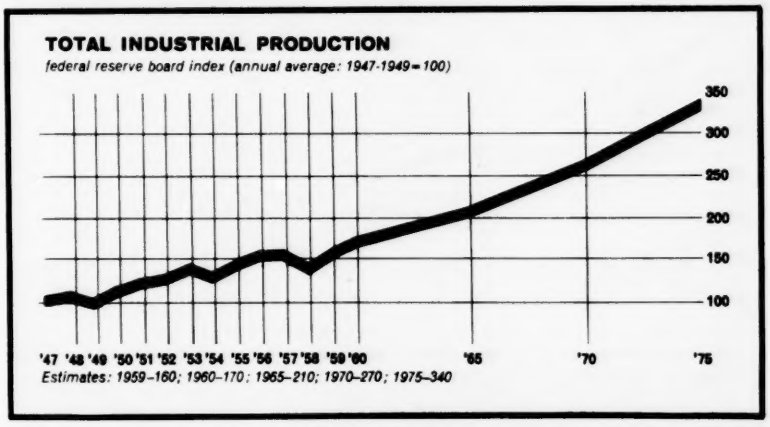
Through the Federal Interstate Highway System we have begun to solve this looming traffic problem. Already the cost of this road network has been estimated at $40 billion. These expenditures will exert a tremendous force on many sections of the construction industry. For every billion dollars of highway construction, 93 million tons of aggregates, 17 million barrels of cement, and half a million tons of concrete pipe are required. To supply the anticipated needs of the Federal Interstate Highway System alone will absorb twice the present annual output of the entire U. S. cement industry.

BUILDING FOR 1975

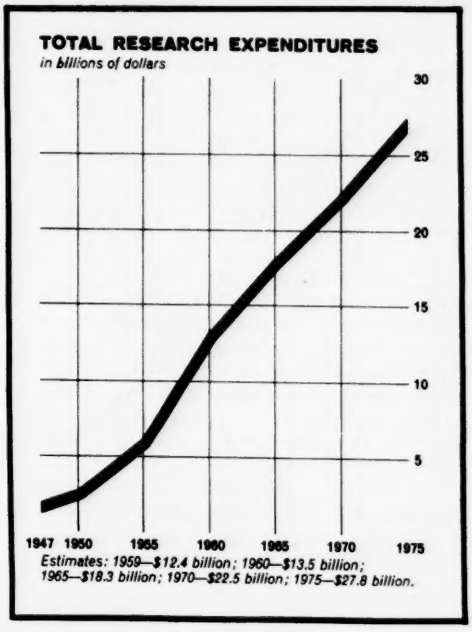
These demands indicate some of the main dimensions of the building program ahead. During the next 15 years, our economic growth will require spending the enormous figures of $1,540 billion for construction materials, services, and labor. In itself this will constitute one of the major forces of growth within the economy.

People, technology, a tremendous demand for building — these are the dynamic forces in the American economy today. Together they project the widening dimensions of the economic future.





The accompanying charts give dramatic evidence that the nation's economy is headed in only one direction: Up. Prepared by American-Marietta Company, the charts are based upon figures obtained from a comprehensive study of the outlook between now and 1975.



Charts courtesy of American-Marietta Company

Product Development, Expanded Services Spark Growth at ACF Industries

A diversified operation, ACF anticipates that through its continuing expansion and promotion programs its sales will reach $300 million in fiscal 1961. The big company's pattern of growth is discussed here by the chief executive officer.

By William T. Taylor

ACF is both a manufacturing and a service company. A substantial portion of its business is for the government, currently about 30 per cent, although at times it has been as high as 50 per cent. As a manufacturer it serves a number of industries, some of which are highly cyclical.

We have made some progress toward leveling the peaks and valleys of these cycles. History shows that we have had good years and bad years but that the average has been reasonably good. The cycles in our several areas are not characteristically concurrent. Even when the recession and the steel strike gave us particularly rough treatment in fiscal 1959 and the current 1960, we can point to a profit in both years.

In order to present a balanced picture of today's ACF, the story should be told division by division, with a discussion of each division's current position. I will start with American Car and Foundry division because it is the largest.

The American Car and Foundry division, with plants in Berwick and Milton, Pennsylvania; Huntington, West Virginia, and St. Louis is the nation's second largest manufacturer of railroad cars. Since 1945, we have received orders for an average of 9,437 freight cars annually. This does not include the yearly average of 1,576 tank cars built for industrial customers and our own car leasing fleet.

ACF's share of annual freight car orders received by independent car manufacturers has averaged 24 per cent since 1945. This percentage has been fairly constant throughout the period. Our car order backlog presently is $64 million.

Our projections anticipate that the backlog will increase progressively for some months to come. We define "backlog" as the total of firm orders. We do not include letters of intent which sometimes run into very large amounts.

The dwindling serviceable freight car fleet, which is near an 18-year low, and reported increases in railroads' equipment buying budgets for 1960 certainly are indications of better times ahead in the railroad car building industry. And these are not the only indications: because of many improvements and new developments in equipment geared to shippers' needs, we know that there are growth possibilities in railroading in addition to the general need for new cars.

The rapid growth of piggybacking is one indication of this. Ten years ago the piggyback method of shipping freight was barely beyond the conversation stage. Today, piggybacking operations are headed for another record year — as high as 700,000 carloads in calendar 1960, according to some estimates. In the past year, ACF sold more than 1,000 of its new 85-foot piggyback flatcars the design of which has been accepted as standard by Trailer Train Company, presently the largest single user of this equipment. We have sold 8,500 of the retractable trailer hitches which ACF developed and introduced in 1957. More than 60 per cent of all flatcars in piggyback service at the present time are equipped with these ACF hitches.

Another example of growth through product development is the covered hopper car for dry bulk commodities. Its original purpose was to haul cement. Today the list of chemical and food items carried in covered hoppers is in excess of 200. ACF recently has developed a covered hopper car for use with pneumatic as well as gravity unloading equipment. It is called the Ship-O-Matic and is offered to industry for lease by Shippers' Car Line division and for sale by the American Car and Foundry division.

The 8,176 freight cars other than tank cars that were delivered by

ACF last year are significant not because of the number of cars, which is not large in comparison with other years, but because of the nature of these orders.

Contrary to the traditional pattern of the carbuilding industry to await inquiries for railroad specification cars as a basis of sales, we are placing strong emphasis on development of standard products which can be built and marketed with benefits to both buyer and seller. We already have reached a point where we are building standard products for the market in advance of firm orders. To us this means greater efficiency in scheduling of production, control of costs and inventory levels. To our customers it means early delivery and the price benefits of mass production methods.

In short, we are working toward a measure of stability in the market rather than being wholly controlled by its fluctuations. Another step in this direction is the ACF Plan for Leasing Cars to Railroads which we announced last year. This plan affords a method of adding business in good times and creating business in dull periods.

The Pennsylvania Railroad leased 2,000 hopper cars under the terms of the ACF Plan. Discussions on the feasibility of leasing are being carried forward with a number of other railroads. Meanwhile, we are studying car leasing and purchase plans to ease commuter problems such as those put forward recently by the Port of New York Authority and by the municipally sponsored Passenger Service Improvement Corporation of Philadelphia. Commuter problems across the country will be faced sooner or later, and when they are, there will be a rebirth of passenger car manufacture.

In addition to our railroad business, there are several other aspects of American Car and Foundry division activities that deserve mention. One is the mobile system for launching the Minuteman missile from rail cars developed jointly with American Machine and Foundry Company. The two companies recently have been awarded a contract by the Boeing Airplane Company with Air Force approval to design and build prototypes for the Minuteman ICBM test program.

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If this leads to a considerable volume of business, it can be doubly important to ACF because large-scale production of defense products together with railroad car production in our heavy industry plants places the American Car and Foundry division in its most favorable profit position.

RAILROAD CAR LEASING

It is somewhat of a paradox that the aspect of our business exerting the greatest stabilizing influence on our earnings, and which also has demonstrated an impressive growth record, is the one least understood outside the Company itself. I refer to our railroad car leasing business. The cars are built by our American Car and Foundry division and are sold at cost to our Shippers' Car Line division, and the SHPX group of wholly-owned companies.

In order to give any meaningful explanation of our leasing business, I must break it down into two quite different types: first, leases under which we provide complete maintenance and service; and, second, net leases. Maintenance and service leases are normally to industrial corporations and usually cover tank cars, although we have a few such leases to railroads, and in some cases maintenance and service leases cover non-tank cars, such as covered hopper cars.

Most of the statistics I am giving relate to maintenance and service leases — a business which we have been developing for several decades. The net lease as we conceive it in our business is a recent development. It is useful chiefly as a financing medium and is usually for a term substantially equivalent to the life of the equipment. Our ACF Plan for Leasing Cars to Railroads follows the net lease concept, and while we expect it to provide substantial profit, the backbone of our lease business now is our maintenance and service leases.

Now, as I mentioned earlier, I am going to reveal a statistic that we never before have made public. As of December 31, 1959, the gross rentals payable during the unexpired portion of maintenance and service leases was in excess of $75 million. The unexpired portion of our net leases represents about $26 million. These car leases comprise a built-in stability factor because of their staggered maturity dates and relatively long terms.

As of December 31, 1959, our maintenance and service fleet totaled an all-time high of 16,259 cars — a ten-year growth record of about 70 per cent in number and considerably more than that in dollar value and earning power. It is now the nation's third largest private car leasing fleet. Shippers' fleet, the youngest on the rails, is balanced in types of cars so that it will not be dependent upon any one industry. The age mix of the cars is such that there will be no major replacement problems in any one short period of time. A net gain for the fleet of about 500 cars this year and 750 in fiscal 1961 is anticipated.

Diversification of the fleet has resulted from the fact that the large majority of the cars serves growth industries, such as chemicals, petrochemicals and food products. The fleet now carries more than 700 varieties of ladings, and research is going on constantly to increase these diversified uses.

Customers in chemical and petroleum industries gradually are increasing their demand for the 16,000 and 20,000-gallon-capacity king-size tank cars the division introduced last year. The probability of favorable rate changes for volume shipments will increase the use of these cars.

It is well known that ACF has looked to diversification to cushion the impact of the off years of the railroad equipment buying cycles. To broaden our diversified areas, we are exploring every potential avenue within the framework of our manufacturing and marketing competence.

This has been a company in transition in that we have been consolidating earlier diversification moves, keeping what is best for us, disposing of what is not suited to present operations and combining facilities that tend to overlap technically or administratively.

ELECTRONICS DIVISION

An example of the latter is the recent merging of the Avion and Nuclear Products — Erco divisions into the newly created ACF Electronics division. This consolidation of our electronics activities into a single large operating organization will strengthen our position in this field.

Recently we signed a contract to sell for cash and royalties our electronic module, capacitor and resistor production equipment, inventory and patents to a strong company with capabilities and experience in supplying the radio and television equipment industry. The purchaser, directly and through one or more licensees, will manufacture these products and market them in the United States and Canada.

We have retained our foreign patents with the privilege of incorporating the purchaser's improvements, enabling us to license or to manufacture and sell these devices in the rest of the world. We presently are negotiating with a leading foreign company for a licensing arrangement and plan to negotiate with others. We are convinced that this is the way for ACF to realize its maximum profit potential from these products.

We sold the commercial reactor business to Allis-Chalmers because it had become apparent that future rewards in this field would accrue to companies that are important suppliers to the power equipment industry.

CARTER CARBURETOR

Now to return to our review of the Company's several divisions. Carter Carburetor division manufacturers fuel system components for the automotive industry, and is the nation's largest independent manufacturer of carburetors.

This is an increasingly competitive business, both in the high volume original equipment field and in the replacement market. Certain of the automobile manufacturers compete with Carter and other independents for both original equipment and replacement parts business. Our greatest after-market competition comes from carburetor rebuilders, some of whom recently have been authorized as rebuilders by automobile manufacturers. Our continued success will depend upon our superior engineering, quality, service and competitive pricing.

Carter has entered the expanding foreign car market in this country with replacement carburetors for the Volkswagen and Hillman, the Anglia and Prefect models of the English Ford, and this line will be broadened.

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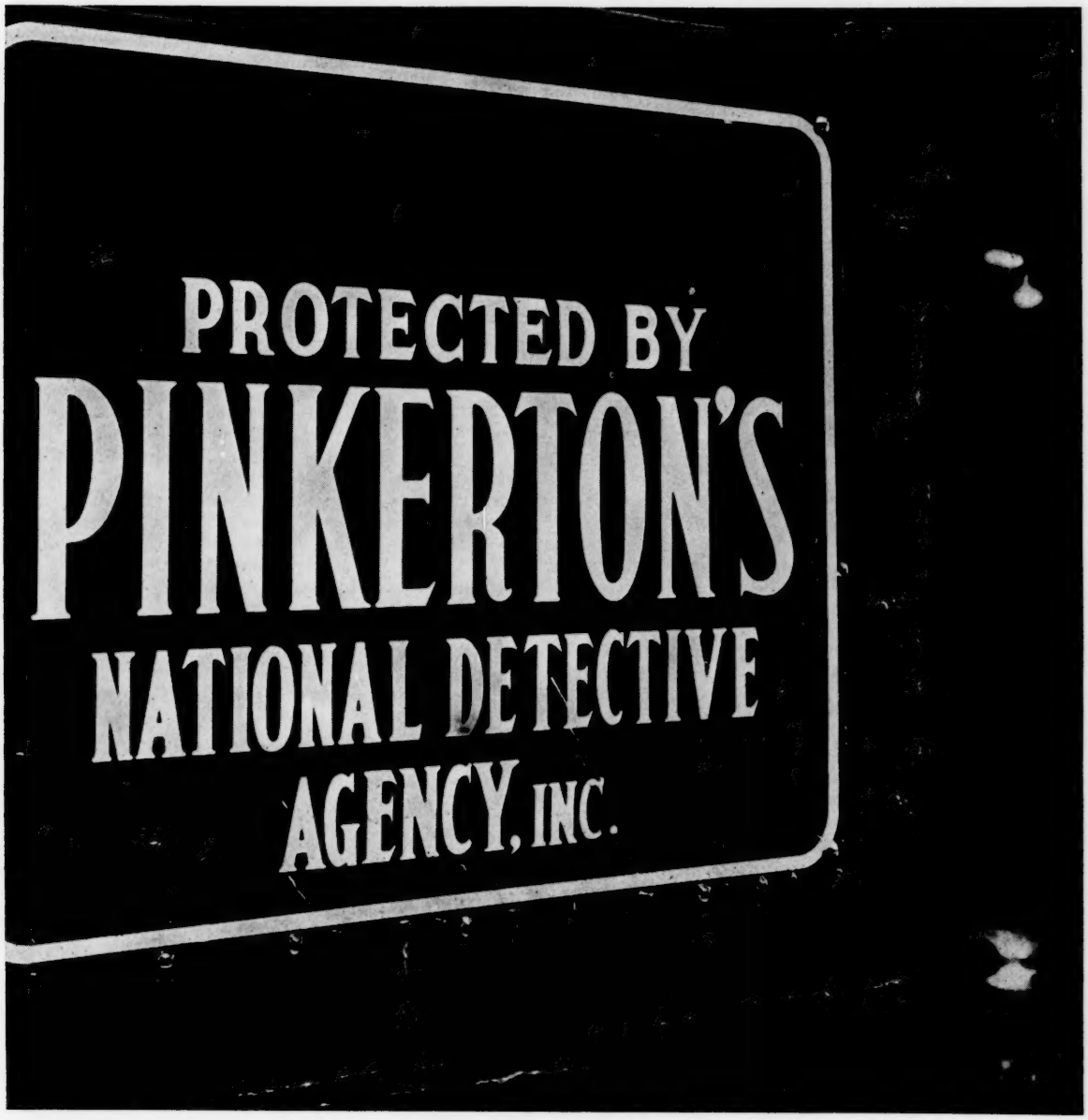

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Another new and promising product is the vacuum booster pump which now is being sold as original equipment and nationally in the replacement market. In addition to superior performance as a fuel pump, it provides motorists for the first time with the extra power required for dependable all-weather wiper action on wrap-around windshields.

We realize that we are entering an era of great technological advance in the automotive industry. In the new Carter Research and Engineering Laboratory we have consolidated our research, development and testing facilities to provide our customers with new and better products, and more and better service. We also have enlisted university and professional laboratory groups to join Carter in researching various possible fuel systems of the future. One result has been the actual programming of components that Carter can produce for the gas turbine engine.

W-K-M DIVISION

Our W-K-M division in Houston, Texas, manufactures valves principally for the petroleum and gas transmission industries. It currently is feeling the effects of increased price competition induced by curtailed expenditures for new drilling.

This division is developing new products to broaden its markets in industries not served heretofore on a volume basis. These include the petro-chemical, refinery, sewage and power utility fields. New W-K-M division products, including a rubber-coated plug valve for sewage and allied uses, and pressure sealing gate valves for a variety of services, have been well received in these markets.

ACF ELECTRONICS

I have mentioned the recent merger of our Avion and Erco divisions into the ACF Electronics division, with headquarters in Riverdale, Maryland. While this activity still represents a relatively small part of the Company's total business — approximately 10 per cent — both of its newly merged elements have been consistently profitable enterprises and both are engaged in promising research and development activities.

THE ACF INDUSTRIES CHAIRMAN

William T. Taylor was elected chairman of the board of ACF Industries, Incorporated three years ago. He has been a director since 1952. Prior to joining ACF in 1957 he was vice president and a director of Bankers Trust Company and continues to serve on its board. His 30-year banking career includes service as president of the Union Trust Company of Springfield, Mass., as vice president of the Guaranty Trust Company of New York, and as vice chairman of the Commercial National Bank and Trust Company of New York. He is a director of Allied Stores Corporation and General Time Corporation, a member of the board of managers and executive committee of the Adams Express Company, a director and member of the executive committee of the American International Corporation, and is a director of the Fairfield County Trust Company of Stamford, Conn. He is a past president of the New York State Bankers Association. and is a trustee of Columbia University.

The new division operates plants at Riverdale and at Paramus, New Jersey, and has recently established an Electro-Physics Laboratory in Bladensburg, Maryland.

The division has designed and built electronic flight simulators for more types of military aircraft than any other manufacturer. New orders have increased our backlog in this area to about $14 million. These include 19 simulators for various types of military planes, plus modification of current simulators and trainers and field service work here and abroad.

We recognize the limited future of conventional manned military aircraft, although it has had no effect yet on current business, and we are directing our research toward training and check out devices for missile launching crews and for man-in-space vehicles.

Our radar beacons for tracking missiles are used by all three services and our Western allies on all missiles and the Mercury man-in-space project. Our television and optical navigational displays developed for military pilots are being flight-tested by the FAA and two commercial airlines, and a commercial version is being demonstrated to all airlines.

As one of the few technological leaders in the infra-red field we are now putting our knowledge to work on anti- submarine- warfare techniques.

ACF's participation in Project Tepee was announced some months ago. This is the backscatter monitoring system that can detect the launching of a rocket or the firing of a nuclear weapon at extreme range, far exceeding the capabilities of conventional radar stations. Recognizing the extremely critical nature of the early warning problem, we began research in that direction at our own expense, and are continuing the effort on a broad scale with funds allocated to us by the Government. We cannot predict at this moment whether this will become an important production factor, but it did represent a major scientific breakthrough.

The business of our Albuquerque division is of a strictly classified nature. We are at liberty, however, to tell you that it operates the South Albuquerque facility of the Atomic Energy Commission's nuclear weapons complex. In addition to production work, one of ACF's functions is to translate into hardware, ideas of the scientists of the Los Alamos, Livermore and Sandia Laboratories. An important assignment of this facility is production and assembly of components for Projects Rover and Pluto, the nuclear propulsion rocket and ramjet programs. This business is operated on a cost-plus, fixed-fee basis.

MANAGEMENT STRUCTURE

Now I should like to discuss the ACF executive team and the relationships of division and corporate management.

Our organizational concept has undergone continuous scrutiny and refinement with the result that we are effecting some "recentralization" in the interests of economy and efficiency.

Divisional managements still are responsible for profit in their division, cost control, research, expansion of product lines and general improvement of their competitive positions. But we have increased the authority and responsibilities of the staff officers to improve communication and control and to coordinate the facilities and talents of the various divisions for the benefit of the Company as a whole.

The executive department includes the chairman of the executive committee — James Clark, whose area of principal responsi-

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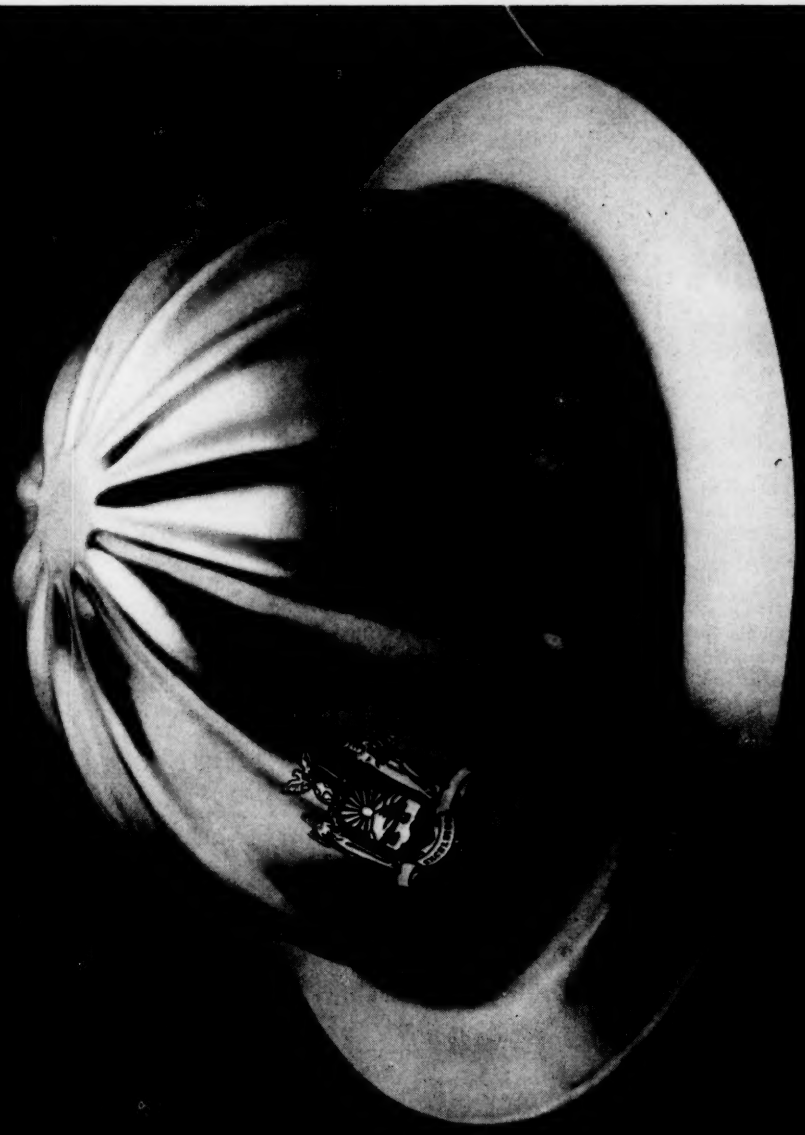

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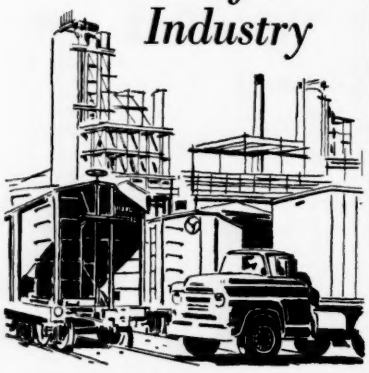

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bility is planning; the president — Russell Taylor, who is responsible for operations, and I, chairman of the board, for policy. This is a three-man team in practice as well as on the organization chart.

FISCAL POSITION

Now as to our fiscal position: The most severe impact of the steel strike came in our third quarter which ended January 31st, 1960. Despite buildups of steel inventories last spring, our railroad car building shops were virtually closed down in November, December and part of January. Of course Carter Carburetor and W-K-M volume was affected by curtailed orders from their customer industries. There was a distinct turn for the better in January. The result for the third quarter is a loss of approximately $585,000 in ACF Industries, Incorporated, and a profit of $294,000 in SPHX for a net loss of $291,000.

Therefore our nine-month period will show a profit of approximately $1.791 million for ACF and $880,000 for SHPX, or a combined profit of $2.671 million equivalent to $1.86 per share.

As of today we estimate that the combined sales, rentals and services of ACF and SHPX for the year will be in the neighborhood of $270 million compared with $185.899 million in 1959 which for us was the low point of the recession.

If these forecasts materialize, our combined earnings for the year should be approximately $5.2 million or $3.65 per share. Last year's earnings were $1.714 million for ACF and $1.006 million for SHPX, a total of $2.720 million or $1.92 per share.

Looking beyond into fiscal 1961 is quite another matter, for in our type of business it is difficult to make long-range forecasts.

However, we will go so far as to say that our planning for fiscal 1961 is based on combined sales and services in the area of $300 million. If we achieve this volume, our earnings should approximate $6.50 per share, without any change in reporting depreciation. This planning is, of course, subject to the unpredictables that may call for re-evaluations as the year progresses.

FUTURE CAPITALIZATION

As to capital requirements, we are happy to state that we are adequately capitalized for projected growth for the next few years, and presently have no plans for equity financing. We intend to continue to finance our car leasing programs by long-term borrowings secured by the rolling stock as we have in past years in SHPX, and as we have started to do recently for our ACF Shippers' fleet.

Capital expenditures in recent years have averaged about $6.5 million for plant and equipment, and $10 million for rolling stock of which over 60 per cent has been for the SHPX companies which have been financed without recourse to ACF. Capital outlay this year will fall just short of the average, with 1961 requirements expected to be about the same or slightly higher than in 1960.

CORPORATE EXPENDITURES

Corporate expenditures for research and development in 1960 will be about $2 million. In addition, Government-sponsored projects will add approximately $12 million to ACF's research activities. Preliminary estimates for fiscal 1961 call for an increase to $3 million of corporate funds, and indications are that our Government work will exceed $17 million. To make technical information of each division available to all divisions we are organizing a corporate Research and Development Committee. It is under the jurisdiction of the corporate vice president for engineering and research and will include appropriate representatives of both the corporation and division staffs.

You're in good company!

It is estimated that the 16,000 key executives who receive INDUSTRIAL DEVELOPMENT each month control more than 70 percent of the nation's industrial growth. Some 8,000 readers are presidents of large national firms in the fastest-growing categories.

UPSTATE NEW YORK

THE MOHAWK VALLEY

A NEW CHAPTER IN

A favorable location on one of the country's great transportation corridors and a truly remarkable upsurge of community activity have enabled the cities and towns of the Upper Mohawk to bring new vitality to an area famous for more than a century in the annals of American economic growth.

By Frank H. Stedman

Midway between New York and Buffalo on the New York Central or the new Thruway, travelers encounter a region that will seem familiar to them, even though they have never been there before. It is a section of America that has a sort of scenic, homey charm; and, as such, it inspires many an artist to take up his brush and capture pictorially some particular aspect of the area.

The fields do not stretch endlessly into the distance, but stop at a line of trees, in brilliant color if it is autumn. There are many dairy cattle, big barns, and comfortable-looking farm houses. If it is winter, there will be children sledding on a hillside, and most of the passing cars will have racks on top for skis.

The towns come fairly close together, and many of them have elm-shaded rows of Greek Revival and American Gothic houses. There is a fair sprinkling of red brick mill buildings, some of them three and four stories high, and often ivy-covered. Some of these appear to be vacant, others have several signs on them indicating a diversity of small firms, and still others have modern one-story additions. In sharp contrast to the older plants are a number of sleek new one-story plants.

The two largest cities, Utica and Rome, are both largely made up of single-family houses, and have relatively little evidence of traffic congestion, parking problems, and blighted areas. Outside

A STORIED LAND

both are sizeable new housing developments, clustered around new schools and served by new shopping centers.

Throughout this area there is nothing big. No real skyscrapers, no mammoth industrial plants with acres of parking space, no evidence of big economic or social problems. A comfortable, congenial, convenient area, you would say.

And yet, as you will discover from people who know the area, it is far from static; in fact, the changes of the last ten years are revolutionary. Moreover, it is now caught up in the advanced technology of present-day defense needs, and figures importantly in the Pentagon's planning. The equipment installed on the DEW Line, for example, was designed at Griffiss Air Force Base in Rome.

The change in the economic base of the area is the most far-reaching and thoroughgoing. As late as 1947, textiles were still the largest single employer in the area, but by 1957, as the accompanying table shows, textiles had all but disappeared and had been replaced by electrical machinery and transportation equipment, which were unimportant ten years before.

Employment and Value Added by Manufacture in Selected Industries, Utica Rome Metropolitan Area, 1947 and 1957

Major industry group	No. of employees		Value added ($1,000)	
	1947	1957	1947	1957
Textile mill products	9,669	1,780	35,695	9,708
Primary metals	5,806	6,951	36,472	71,278
Electrical machinery	2,948	7,389	N. A.	78,165
Transportation equipment	950	3,168	3,723	24,965
All Industries	50,975	47,347	232,985	401,248

The overall decline in manufacturing employment shown by the figures is more than compensated for by the 7,700 civilian and 3,300 military employees of Griffiss Air Force Base.

Terrain and Climate

The present-day Mohawk River is not large, but it flows through a magnificent lowland route to the interior of the continent — by far the lowest crossing through the Appalachian Mountain system. An accident of the later stages of the Ice Age is mainly responsible for the lowland. Before the ice had melted from the lower St. Lawrence valley, the entire drainage for the whole Great Lakes area for a while flowed out through the gap between the hard rocks of the Adirondacks and the edge of the Allegheny Plateau. In doing so it carved out the Water Level Route.

The valley is narrowest between Little Falls and Utica, but it gradually broadens westward into a sizeable lowland surrounding Oneida Lake and bordering Lake Ontario on the south. The present divide between the Mohawk and Ontario draining is a trifling rise between Rome and Oneida Lake, crossed by an easy portage much used by the Indians.

Two Susquehanna tributaries originate on the rim of the Allegheny Plateau just south of Utica, and their valleys provide good routes south to Binghamton. North of Rome there is a gap at Boonville that separates the main mass of the Adirondacks from a western outlier, thus providing a good route north to the St. Lawrence.

The Utica-Rome area is thus the first west of Albany with fairly easy access north and south as well as east and west.

The area included in this survey consists of Oneida and Herkimer counties and the bordering portion of Madison County — about 2,800 square miles.

About a third, mostly in Herkimer County, is a slice of the western part of the main mass of the Adirondacks. This is ideal vacation country, honeycombed with lakes and streams, and nearly all wooded. The greater part of it is administered by the State as the Adirondack Forest Preserve. Some parts of this area are as much as 10 miles from any road — a sure indication of bona fide wilderness conditions. Elevations are mostly between 1,000 and 2,500 feet.

The rest of the area is a pleasant mixture of farms and woodland, dominated by big dairy barns. There are a little over 5,000 farms averaging about 150 acres each. Oneida and Herkimer counties had a total farm income in 1954 of $31.4 million, of which $23.4 million was from dairy products, $3.8 million from crops, and the remainder from livestock and poultry. Oneida County is the seventh ranking county in New York and the 199th nationally in total farm income.

The climate is typical of that in the northeastern section of the country generally, with four marked seasons. The January and July mean temperatures at Rome, which may be regarded as typical of the area as a whole, are 20.4° and 69.7° respectively. Extremes of 98° and —27° have been recorded. Annual rainfall averages 46.8 inches, and is well distributed throughout the year.

The great development of winter sports in recent years has made the area look forward to the first big winter snowfall with as much zest as for the opening of the swimming pools in the summer. Since everyone is used to snow, and removal squads go into action on short notice, there is far less inconvenience from winter weather than in areas where snow is much less frequent.

The Pattern Emerges

Although Utica is east of Chesapeake Bay and is only 90 miles from Albany, which was settled early in the seventeenth century, the Iroquois Indians managed to keep the Upper Mohawk closed to white settlement until after the Revolution. The British General St. Leger led the Indians on their last big foray against the white settlers of the middle Mohawk as part of Burgoyne's grand campaign of 1777. General Herkimer turned back the British and Indians at Oriskany, between Utica and Rome, and St. Leger was forced to retire.

Once the Power of the Iroquois was broken, settlers swarmed in rapidly, and by 1800 were already at Buffalo. Towns grew up quickly along the lowland route stretching across the state; since a strong Classical tide was then running, they were called Rome, Syracuse, Ithaca, Utica, Ilion, and Troy, and also Cato, Pompey, and Marcellus.

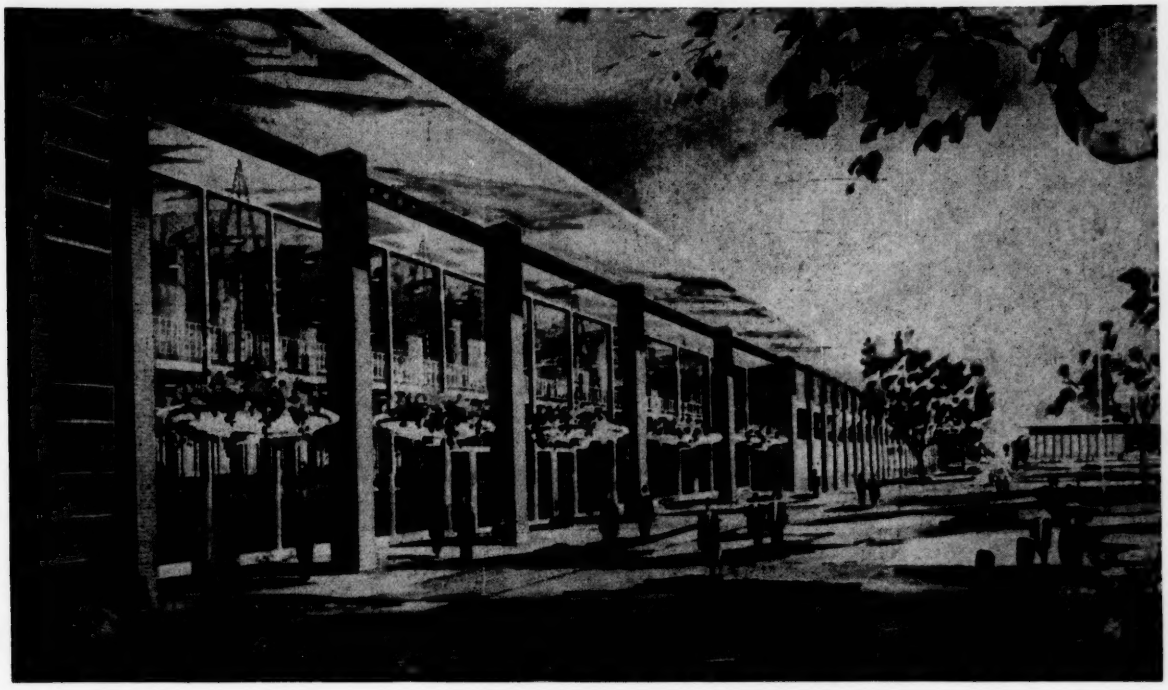
In 1817, a spadeful of dirt was turned in Rome to start the construction of the Erie Canal. Eight years later the opening of Governor Clinton's "Big Ditch" marked the beginning of an economic revolution, as goods could now be brought out from the western states more easily via New York than via New Orleans. The agricultural towns along the canal now began to turn to industry, using local water power sites and bringing in raw materials and shipping out finished products via the canal.

Although the textile industry dominated in the early days, wood-using industries and some metal trades also started early, and by the time of the Civil War, the Upper Mohawk was a major industrial area. One of the earliest of the metal industries was the Remington Arms plant started at German Flats, later Ilion, by a Connecticut Yankee, Eliphalet Remington.

The period between the Civil War and World War I saw the beginning of the Remington typewriter in 1873, the conversion of the Rome Iron Works into a brass casting shop in 1878, and the drawing of the first copper wire in Rome in 1883; in 1912 Oneida Community, Limited, began the transfer of its production of "Community Plate" to its headquarters in the Oneida area.

Meanwhile, Utica had grown to a population of 94,000 in 1920. Its main reliance was on the textile industry — especially knit goods, but it too had important metal industries, among them stoves. The Savage Arms plant had been a major employer during World War I and was to be again in World War II.

Spinning and weaving plants began migrating southward in the 1920's, but most of the knit



A major factor in up-grading labor skills in the whole Upper Mohawk area is the Mohawk Valley Technical Institute, which is building this new campus east of Utica.

goods industry stayed on until after World War II. The first post-war recession came in 1947 in soft goods industries, and beginning in that year one after another of the knit goods plants closed their doors, to consolidate their operations in their Southern branches. In 1951 the process became a rout and Utica lost 4,000 jobs in less than a year.

This was the first major crisis to strike at the area. Earlier shut-downs had been either part of a nation-wide depression or had been so gradual as not to bring about any major unemployment at one time. Out of this crisis emerged a pattern of community organization and cooperation that has come to pervade not just Utica but the whole area and to provide the impetus for most of the major changes that have so largely transformed the area.

Utica Moves Toward a Solution

Utica already had a strong Chamber of Commerce, which had previously set up the Utica Industrial Corporation to line up suitable industrial sites and property. The current president of the chamber was a local merchant, James G. Capps; he also took over the presidency of the industrial corporation, a position he still holds.

In 1946 the chamber set up an Industrial-Business Development Division under the leadership of a former mayor and state senator, Vincent R. Corrou, who later became chamber manager.

One phase of the community effort these men helped to launch was a rigorous self-examination, in the course of which the need for improved educational facilities became evident. At that time, Utica was the only city of over 100,000 people in New York State that had no college. Furthermore, it understandably had the lowest number of high school graduates going on to college and the lowest average number of school years completed.

In 1946, Syracuse University was persuaded to open a branch in Utica, at first as a junior college, but now a full-fledged four-year institution. In the same year, the State Legislature established an Institute of Applied Arts and Sciences in Utica which has now evolved into the Mohawk Valley Technical Institute.

Meanwhile, negotiations were under way between the Utica Industrial Corporation and its first serious prospect — the Chicago Pneumatic Tool Company, which was looking for a new location for its Cleveland operations. Attracted by the good supply of male labor available at reasonable rates, the company was in need of a

Utica College of Syracuse University, which has been in temporary quarters since its founding in 1946, will move late this year into its new campus west of the city. Raising money for the new campus was another successful endeavor of civic-minded Uticans.

Chicago Pneumatic Tool's plant east of Utica has a special meaning to the people of Utica, as its construction in 1948 started the ball rolling in the transformation of the city's economy from mainly soft goods to diversified hard goods with some healthy soft goods surviving.

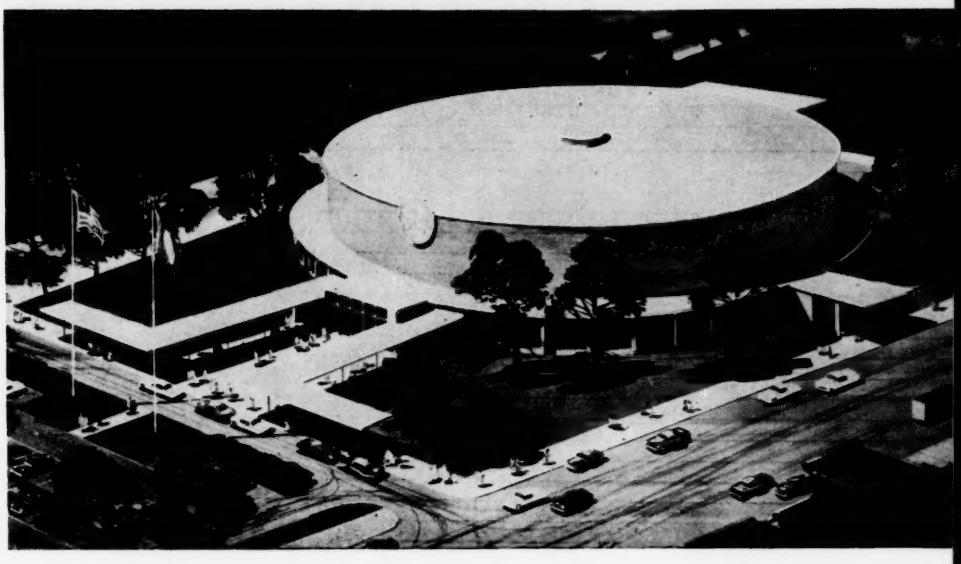
suitable site. Utica itself was almost completely built up, but the Utica Industrial Corporation had an option on a 77-acre tract just over the line eastward in Frankfort.

Utica city authorities agreed to extend sewage lines to the new site. And when the company noted that the state law requiring all new firms to pay the maximum rate of 2.7 per cent, whereas the company's favorable out-of-state employment experience would warrant a far lower rate, Utica civic leaders went to the state legislators and succeeded in getting the law changed to give credit for experience in other states.

It was not until 1948 that all the obstacles had been removed and Chicago Pneumatic Tool went ahead with its plans. But with the building of its new plant, the transformation of the Utica scene began. When it came to staffing the new plant, the company brought in some of its own workers but found a considerable program of retraining necessary to adapt local workers to its processes.

The trainees were many of them men who could not afford the modest fees charged at the new Mohawk Valley Technical Institute, but the local Rotary Club stepped into the breach with the offer to pay tuition for those who needed help. And the Oneida Valley Medical Society arranged for free medical examinations for job applicants.

Only a short time was necessary to prove the adaptability of the former textile workers and the wartime assemblers of military items at the now almost dormant Savage Arms plant. Other firms then began to show interest in Utica. By 1954, General Electric had three plants in the



The new Utica Auditorium, seating up to 6,500, is a brilliant example of both community enterprise and cultural and recreational opportunity.

area and a local firm, Utica Drop Forge and Tool Company, had three new plants; Bendix Aviation Corporation was another new arrival.

Rome's Rapid Growth

Thus far the major changes within the area had taken place in Utica, but now Rome entered the picture with an entirely different kind of problem — one of rapid growth not as a result of its local industries but because of a big government installation.

In 1941, Rome was picked as the site of one of many army air fields being developed around the country. The field became a supply and maintenance base and modification center and employed over 10,000 civilians at its World War II peak, but after the war employment dwindled to 2,100 and it was expected that the field would become inoperative shortly.

But in 1948 part of an electronics laboratory was transferred to the field, and after a long period of indecision, the Government made the field a permanent installation, Griffiss Air Force Base. It is now the home of a large and complex grouping of Air Force activities, more or less focused on ground electronic equipment. In February 1960, employment had risen again to 11,000, of which 7,700 was civilian and 3,300 was military.

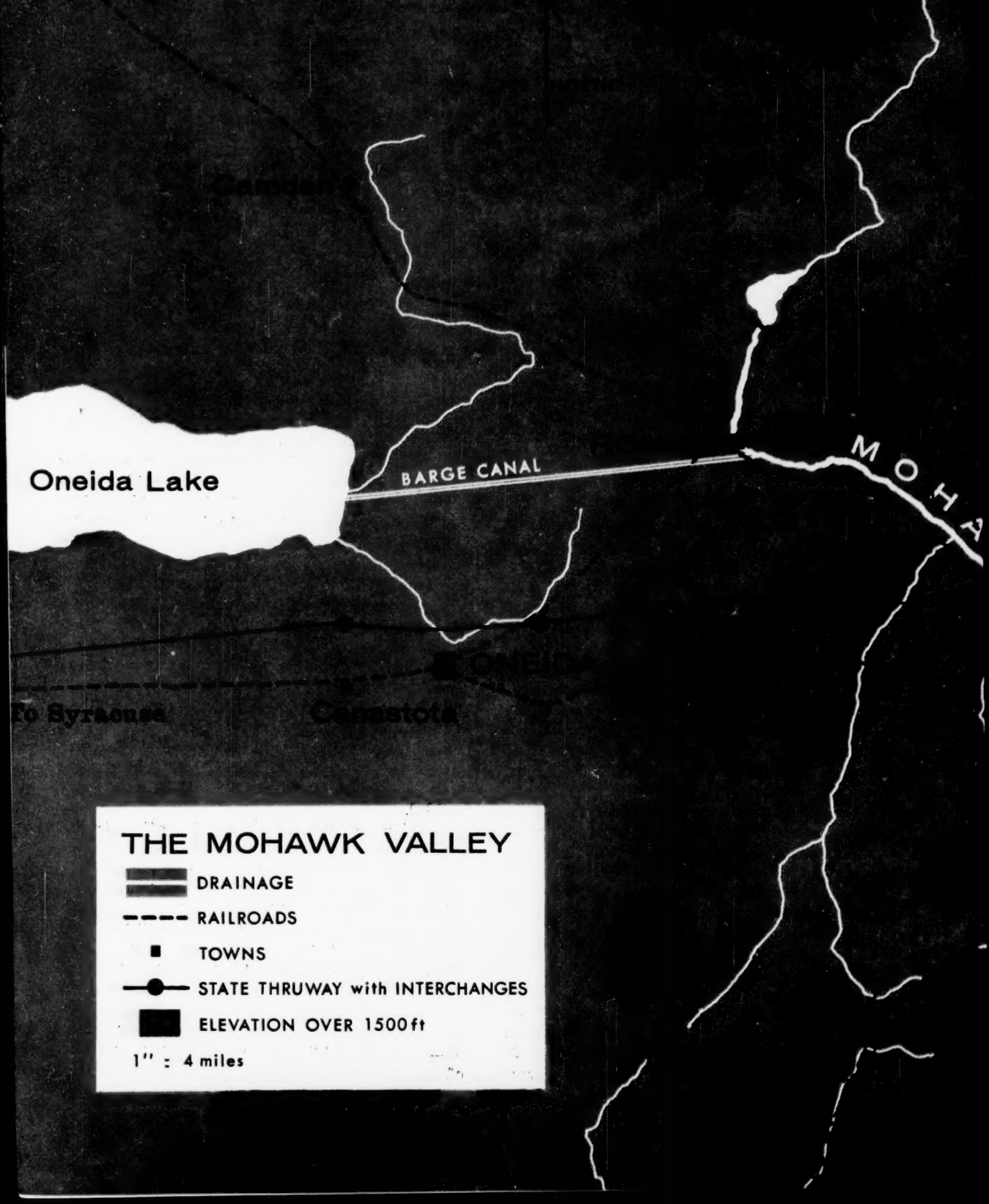
Under this impact Rome has grown from 34,214 in 1940 to 41,682 in 1950 and is estimated by Sales Management Magazine to have reached 49,500 in 1959. This is not unduly fast as compared with many Southern and Western areas, but as compared to the generally stable communities in upstate New York, it is outstanding.

Meanwhile, Rome's manufacturing base has continued to rest on copper products, with Revere Copper and Brass, Inc., producing a wide variety of items other than wire and cable, and Rome Cable Corporation and General Cable Corporation the leaders in wire and cable.

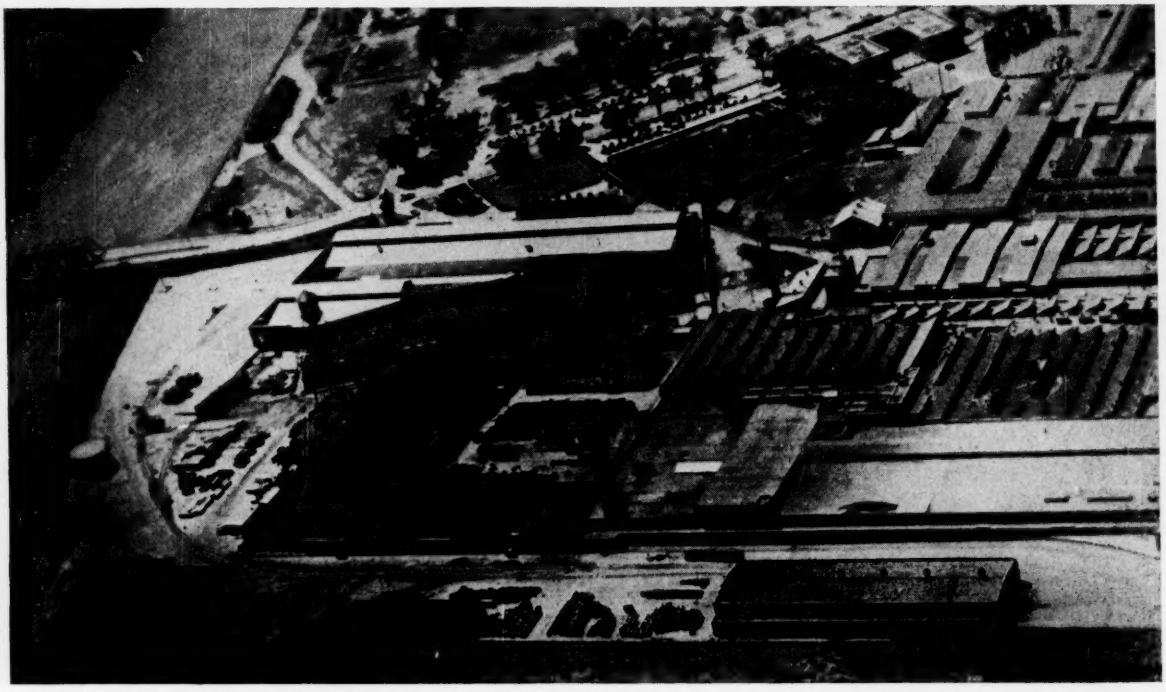
Rome's community efforts have had to do mainly with providing facilities and amenities for its new residents, and with orderly community planning. Unlike Utica, which has a small area almost completely developed, Rome covers a larger area than any other upstate city, much of it rural, and hence can plan its own development with a free hand. The City Planning Board has carried out on its own and through contracts with private consultants a series of studies that chart community needs forward to 1970 and in some cases to 1980.

Another example of community effort is the recent formation of the Rome Industrial Development Corporation to find a user for some 250,000 square feet of modern industrial buildings vacated by the General Cable Corporation in a recent rearrangement of its production facilities. The company turned the property over to the Rome Community Chest, and the industrial development corporation is to manage it.

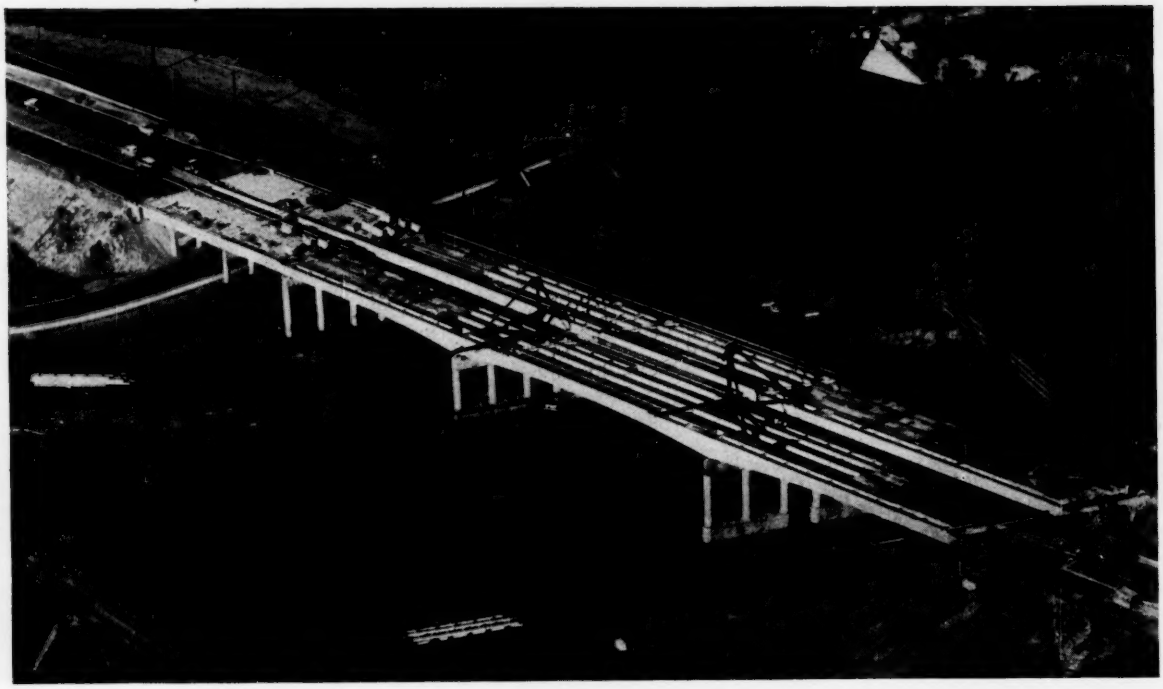
A successful campaign recently completed raised $100,000 in Rome to finance the rehabilitation and administration of the property until it is disposed of.


Oneida Lake
BARGE CANAL
MOHA
To Syracuse
Canastota
THE MOHAWK VALLEY
DRAINAGE
RAILROADS
TOWNS
STATE THRUWAY with INTERCHANGES
ELEVATION OVER 1500 ft
1" : 4 miles

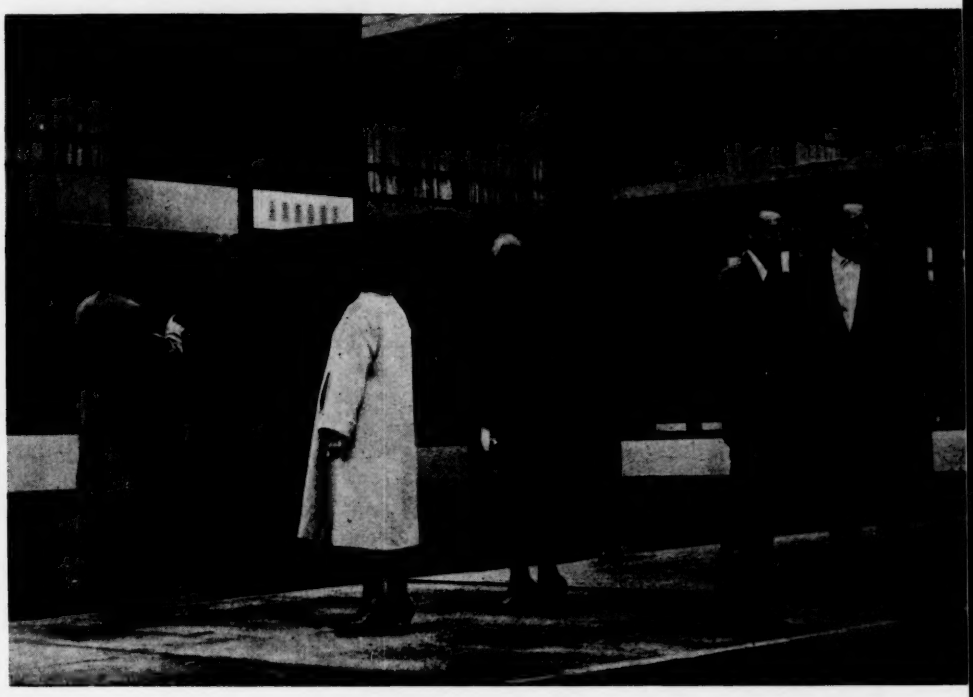
RIVER
K RIVER



The buildings highlighted above, with 250,000 square feet of floor space, are being offered for lease, with option to purchase, by the Rome Industrial Development Corporation.



The southern segment of Rome's 13½-mile arterial system, to be completed this December, crosses the State Barge Canal at this point. Just beyond the bridge, the canal joins the Mohawk River at the point where the river turns eastward. The old Erie Canal formerly ran just this side of the new highway.



When Mohawk Airlines decided to set up its headquarters at the Oneida County Airport no effort was spared to make its incoming personnel at home in the area. Here are some of the newcomers being shown Rome's new Junior High School.

Utica-Rome and Rome-Utica

A certain amount of good-natured rivalry exists between the two large communities in the area. In Rome it is customary to put Rome before the hyphen, with alphabetical order as sufficient justification. Utica dismisses this as irrelevant and points out that the Census Bureau refers to the Utica-Rome Standard Metropolitan Area.

But quibbling over this point has in no way hindered cooperation on matters of genuine concern, as for example the airport, which is half way between the two, and Mohawk Airlines, which serves them both.

After a period in which no scheduled service was offered to the two cities — American Airlines having given up its stop at an inadequate field in order to concentrate on longer hops — Mohawk Airlines, one of the post-war crop of local service airlines, began service in 1950 on a newly built field.

Mohawk was so pleased with its success in the area that it gave a sympathetic hearing to delegations from the two cities when it was looking for a new headquarters. The fact that there was no competing service to the area and that it was in the middle of Mohawk's network were added advantages.

In 1956 Mohawk announced the selection of Oneida County Airport as its new headquarters and began the construction of a $3 million facility, which was completed in 1958. It is the only airline headquarters anywhere in New York State, and introduces a valuable new element to diversify the local economy. Service is provided to New York, Boston, Ogdensburg, and Detroit and intervening points; Cleveland service will begin in the summer and Pittsburgh service is pending.

One of the ingratiating characteristics of the area is shown by the reception given Mohawk personnel who would have to move to the area. Each spent a day in the area as the guest of a local family carefully chosen as to economic level and outside interests so as to give the newcomers a good introduction into the life of the community.

Community Action Elsewhere

Two other parts of the area also are marshalling their resources to meet the challenge of change — the Oneida-Sherrill area in the west and the Mohawk Valley towns east of Utica.

Sherrill, in Oneida County, is across Oneida Creek from the city of Oneida. The actual home of the original Oneida Community, famous in the religious and sociological annals of the country, and of its successor, Oneida Limited, is in nearby Kenwood. Beginning in the 1840's as a religious community where all goods were held in common and all children were brought up in a community nursery, the Oneida Community undertook various self-help enterprises which turned out to be profitable.

Transformed into a conventional business enterprise late in the century, the group never lost its very strong family feeling, which carried over into its labor relations to such good effect that the company still has no union.

Its greatest success has been in its famous Community Plate line of table silver, which was launched in 1901. With employment of 2,300, the company is the king-pin in the economy of the Oneida area.

In recent years the popularity of stainless steel silverware has cut sharply into the market for plated silver, and foreign competition in stainless steel makes it relatively unattractive to domestic producers. The company continues its production of sterling and hollowware, and is going into melamine dinnerware.

Other industries in Oneida are the Smith-Lee Manufacturing Co., which produces milk bottle caps; The National Casket Co. manufacturers of wood caskets; The Oneida Heater Co., makers of oil and gas furnaces, and the Diemolding Corp., which manufactures plastics.

Civic leadership in the Oneida area is helping to bolster the economy by marshalling support to a whole series of improvements. The master plan adopted by Oneida in 1958 calls for removal of the tracks of the New York Central northward and provides industrial zoning for two desirable tracts west of the city, one of which is mostly owned by the local industrial development corporation.

A $3.5 million bond issue has been passed and a new library, a modern hospital, and a new armory have been built, and sewage disposal is in the planning stage.

The nearby town of Canastota is also planning realignment of the New York Central's tracks, and urban renewal programs are projected for both Canastota and Oneida.

Five Towns

The first really substantial cooperative venture yet to be undertaken in the five valley towns east of Utica is now underway. Located in the narrow middle stretch of the Mohawk Valley, the towns of Frankfort, Ilion, Mohawk, Herkimer, and Little Falls have restricted trade areas and have been industrial towns for more than a century.

The three largest are Little Falls, Herkimer and Ilion, all of which have been near 10,000 for 40 years, while Frankfort and Mohawk are between 3,000 and 4,000. Industry in the area has long been diversified, and the loss of textiles, previously the most important, was cushioned by the growth of other industries in the area and the relative ease of out-commuting — once everyone had automobiles — to Utica, Rome and Griffiss Air Force Base.

For some years the mayors of the five towns have been meeting in regular conferences to discuss common problems, and two years ago the Herkimer Valley Development Corporation was formed. This latter group is now extending its contacts with every civic and service club in the area and is lining up attractive industrial sites. A brochure describing the area is to be released, based on surveys now being made.

Meanwhile, community isolation is breaking down in many smaller ways, as joint arrangements are made for fire fighting, snow removal, new hospitals, and other joint facilities. The individual communities are showing marked signs of new vigor, as plans for modern zoning ordinances, revised tax assessments, new schools, and urban renewal programs get underway.

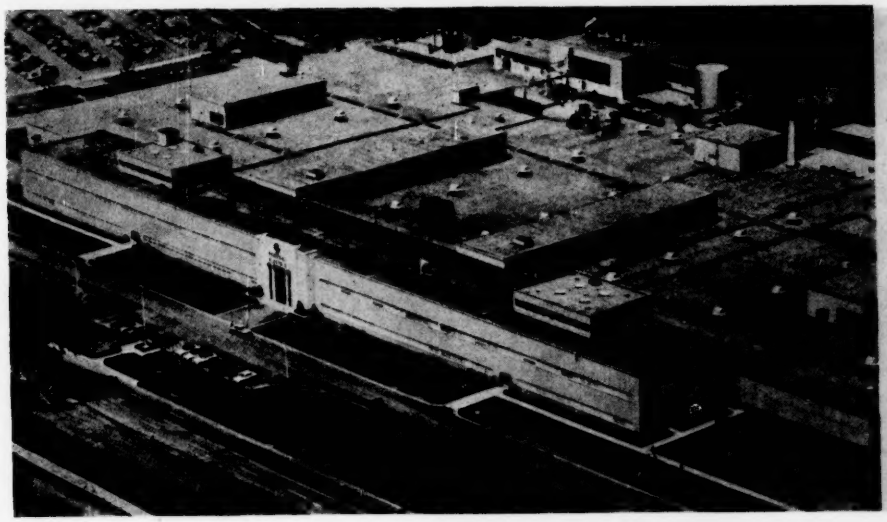
The Present Industrial Mix

Diversity with a strong thread of electronics and other technical industries — this is the present occupational picture in the 50-mile expanse between Little Falls and Oneida. The excellent mix is shown by the fact that of the 81 plants employing 100 or more in Oneida and Herkimer counties, 43 produce durable goods and 38 produce non-durables. Of the 21 categories into which manufacturing concerns are ordinarily divided, the only four not represented are tobacco, products of petroleum and coal, rubber goods, and ceramics; firms employing less than 100 are to be found in these industries as well.

Most of the biggest employers are metals-using industries. General Electric now has no less than seven plants in Utica and neighboring towns, one of them a $15 million new structure for light military electronics. GE also makes heavy military electronics, communications equipment, and table radios in Utica, and is planning a 75,000-square-foot addition to its radio plant.

Kelsey-Hayes, which now controls Utica Drop Forge, also has four plants in and around Utica; jet turbine blades and buckets and various hand tools such as pliers and wrenches are its main products.

Bendix Aviation's large new Utica plant employs about 1,400 making aircraft parts and accessories. Chicago Pneumatic Tool's plant now employs 2,000 and the manager, A. F. Roepnack, indicates that they have every reason to be satisfied with their choice of Utica. One of its advantages



General Electric is well known for its careful selection of towns for its plants—more especially for its study of the business climate. It now has no less than seven plants in and around Utica, some in existing buildings and others —like this one making military electronics—in spanking new buildings.

Research at the Rome Cable Division of Alcoa reached the point in 1958 where this new building was required to house its pilot plant and specialized equipment.

Bendix Aviation's Utica plant, making components and accessories, was staffed to a considerable extent by workers in old Utica industries who responded quickly to retraining procedures.

to them is that practically any product or part they need can be obtained somewhere in the area.

Revere Copper and Brass, Inc., has two large plants in Rome that together employ 3,500. Robert M. Lake, Executive Vice President of the Rome Division which makes copper, brass and bronze mill products of many sizes and shapes, points out that copper got started in Rome as the result of the ingenuity of the management of a plant making wrought iron rails in the 1870's. When steel rails took their business away, they brought in copper specialists and adapted their facilities to copper.

Why haven't they moved elsewhere? They are central to their market, and can bring in copper from anywhere in the world. Besides, the median length of service of their employees in Rome is 15 years!

The other Revere plant is the Rome Manufacturing Company division, makers of the well-known Revere Ware — copper-coated kitchen utensils.

The other major employers in Rome are General Cable and Rome Cable. Rome Cable is a division of the Aluminum Company of America and makes aluminum as well as copper wire.

Sperry Rand Corporation, now using the Remington typewriter plant at Ilion to make Univac computers, is the largest employer in the eastern part of the area. They also use part of the old Savage Arms plant in Utica to make data processing equipment, and they have a plant in Herkimer making museum cases and library furniture.

The other large metal goods producers include Oneida Limited, previously described; Cherry-Burrell in Little Falls, makers of mechanical equipment for dairies; and Mele Manufacturing in Utica, who make jewelry boxes and related items. The Remington Arms plant in Ilion, now a branch of du Pont, still survives, and is still making firearms.

Not in the first rank as far as size is concerned but the major support of two communities northwest of Rome are the Camden Wire Company and the Frank S. Harden Company, of Camden and McConnellsville, respectively. As family-owned and managed enterprises of the Hardens, these concerns typify a pattern once common in American industry but unfortunately now rare. To hear Frank Harden discuss his plant and explain the process of wire making is quite a different thing from being shown around a large, impersonal corporation.

Soft Goods Holding Up Well

Although the metals firms are larger, there are still plenty of non-durables manufacturers around. The Skenandoa Rayon plant in Utica, a branch of Beaunit since 1945, has a sizeable northern market for its filament yarn, according to Rudolph Hoffman, the manager. He points out that they have had excellent labor relations, with no strikes for many years.

There are two major footwear producers — Cosmos Footwear and Little Falls Felt Shoe — in Little Falls, and a third, Daniel Green, in nearby Dolgeville.

One of the more interesting firms in the area is Horrocks-Ibbotson, nationally known makers of fishing tackle. Other well-known products made in the area are Doeskin tissues, Junket, Bordens' powdered coffee, and Utica Club beer.

Hardwoods from the Adirondacks figure in a number of products: baseball bats from Dolgeville, hoes and other garden tools from Frankfort, and desks from Herkimer.

The Art of Living

Driving slowly up Genesee Street in Utica or almost anywhere in the surrounding country is enough to convince you that life can be very pleasant in city, town, or country in this area.

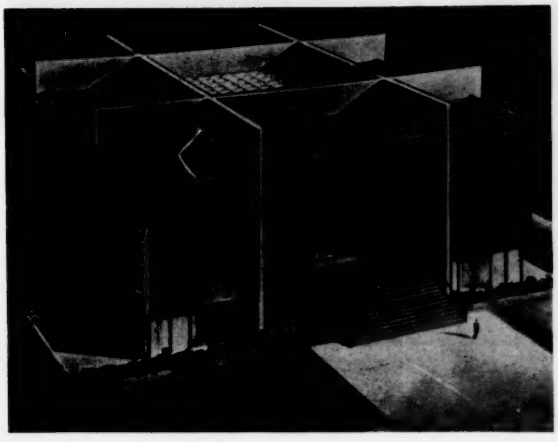
Genesee Street is a truly distinguished street. Magnificent elms and maples tower over stately houses, imposing churches, and a remarkable series of public buildings, including a major hospital with a modern addition, the area Boy Scout headquarters and the new building, not yet completed, to house the Munson-Williams-Proctor Institute. A scale model of this building was exhibited in the United States Pavilion at the Brussells World Fair.

This organization, heavily endowed by the famlies indicated in the name, is a community cultural center of major importance to the city, as it offers art and music classes, facilities for community dramatic and musical groups, frequent exhibits of both local and nationally known artists, and lectures open to the public. It also has a lending library of records and art objects.

The city also has a fine new auditorium used, among other things, for concerts brought in by the Great Artists Series and Broadway road shows attracted by the Broadway Theater League. It also is used by the three major musical groups in the city — the Utica Civic Band, the Civic Orchestra and the Junior Symphony.

Rome also has vigorous community organiza-

The Hamilton College Chapel's graceful spire, outside the town of Clinton near Utica, is one of the area's most graceful ornaments. Like Dartmouth, Hamilton started as a school for the Indians. Elihu Root and Alexander Woollcott are famous graduates.



Utica's new Munson-Williams-Proctor Institute was shown as a scale model to a worldwide audience at the Brussels Fair. When completed in October, it will house community art and music classrooms and lecture halls as well as a fine permanent collection.

tions — a Community Theater with its own building, a concert series bringing top-flight talent, and an annual historical pageant in August — Fort Stanwix Day — to celebrate the successful defense of this vital point against the British during the Revolution. Rome is also noted for its Christmas lighting and ceremonies.

One of the pleasantest communities in the area is Clinton, where Hamilton College is located. Clinton is only nine miles from Utica, and a number of Utica business and professional men live there to take full advantage of the amenities for which small liberal-arts college towns are noted. The college draws its student body from the whole country rather than the local area, but its faculty members are active in community and regional matters and most of the special events at the college are open to the public.

New Facilities and Faculties

More directly involved in community affairs are Utica College and the Mohawk Valley Technical Institute, as already noted. Both are building new campuses, the former with funds raised by public subscription. Utica College now has 800 day students and 2,000 at evening classes; its new facilities on the western edge of the city are planned for almost twice that many and will be ready around the end of 1960. An indication of the value to the area served by Utica College is that 82 per cent of the former students still live in the Mohawk Valley.

The new campus of the Mohawk Valley Technical Institute just east of Utica will accommodate up to 1,500 day students. Its facilities will include laboratories which can handle technical problems and testing in the fields of industrial chemistry, strength of materials, and metallurgy.

Of very great importance to the future of the area is the beginning of graduate instruction in engineering. Griffiss Air Force Base now has graduate-level courses offered by Syracuse University faculty members. The Air Force and General Electric pay the tuition of their employees authorized to take the courses.

Out of Doors

By all odds the greatest recreational advantage of the area is the Adirondacks. With an area of about 5,000 square miles and with the highest point, Mount Marcy, at 5,344 feet above sea level, the mountains offer varied terrain with ideal conditions, at some time during the year, for skiing,

James R. Hughes, Jr., President of the Savings Bank of Utica and currently of the Utica Chamber of Commerce as well, chuckles at a reminiscence of Leo E. LaRow, Niagara Mohawk's Area Manager.

ice skating, other winter sports, hiking and mountain climbing, hunting and fishing, camping, and all summer water sports. Extending for 25 miles through the midst of the mountains is a chain of eight lakes with short portages that is a canoeist's paradise. Many remote stretches of the region look just as they did when James Fenimore Cooper was writing.

Within the settled area is Oneida Lake, which has fine beaches and which is much used for iceboating in the winter. Not far away is Otsego Lake, with Cooper's home and the Baseball Hall of Fame at Cooperstown.

Scattered throughout the area are fine golf courses, small parks and skiing slopes.

Spectators have a fine time of it with the Syracuse and Colgate football games nearby, the Vernon Downs harness horse racing, and during the winter the Eastern Hockey League games of the Clinton Comets.

One of the more exotic offerings of the area is curling, a sort of bowling on ice well known to Scots and Canadians and practiced at the Curling Club.

The accompanying editorial survey of plant location factors in the Upper Mohawk Valley was conducted by ID/MR under the auspices of the Niagara Mohawk Power Corporation. Reprints are available from Richard F. Torrey, Director of the company's Area Development Department at 300 Erie Boulevard West, Syracuse 2, New York.

Who Knows about the Area?

One of the most alert area development departments of any public utility is that maintained by the Niagara Mohawk Power Corporation, which provides both electric power and natural gas service to practically the entire area. The Manager of Niagara Mohawk for the area is Leo LaRow, a Utica native who lived for a long time in Rome and is now back in Utica. His interest in area development is shown by his presidency of the Rome Industrial Development Corporation, previously described. He is personally acquainted with the management of practically every firm in the area.

The Utica Chamber has already been mentioned. The Rome Chamber, ably managed by Albert R. Neill, is also well provided with information.

The Utica College Research Center has compiled a Directory of Business and Industry in the Upper Mohawk Valley and an Economic Inventory of the Upper Mohawk Valley. The area involved very nearly coincides with the limits of this report.

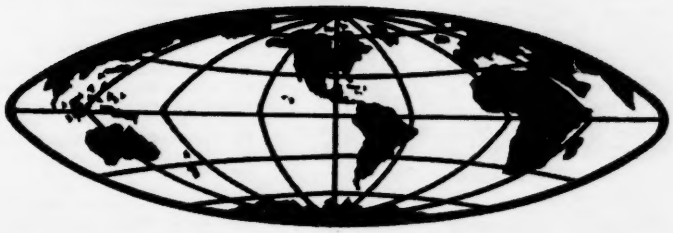
Manufacturers in the area are organized into the Industrial Association of the Mohawk Valley, with headquarters at 404 Court Street, Utica.

Area development departments of the New York Central and Delaware, Lackawanna, and Western railroads are well versed in the portions of the region served by their lines — this includes nearly the entire area.

The New York State Department of Commerce in Albany has much material showing how the area compares with other parts of New York State.

Where Are They Headed? Up!

The drab and gloomy years of textile mill shut-downs and a discouraged population are far behind now, and Mayors Dulan of Utica and Lanigan of Rome talk about urban renewal programs and arterial roads, new schools and hospitals, and improvement in the already advanced waters systems. They are confident of the future and look at the New York State Thruway as the way in to their communities — not the way out.



MANUFACTURERS RECORD

THE INTERNATIONAL SUMMARY OF PLANT LOCATION NEWS ESTABLISHED 1882 VOLUME 129 NO. 5

By DONALD V. QUINN

NEW WINDSOR, NEW YORK — The Frye Manufacturing Company, a leading producer of carbon paper, announced that it will establish an eastern branch factory in the Newburgh area.

The Iowa firm signed a contract for construction of a 40,000 square foot plant in New Windsor, a mile south of Newburgh. It will be of single-story design on a five-acre site and will cost approximately $270,000. The company plans to begin operations next summer. Initial employment of 40 from the area is anticipated.

Marion C. Frye, president of the company, said the New Windsor site was selected because of its proximity to the New York City area, access to a thruway and other important highways, ready availability of labor, and the existence of excellent rail and water facilities.

REDONDO BEACH, CALIFORNIA — American Marc, Inc., formally opened a new $500,000 Marine Division plant in North Redondo Beach. The plant has a production capacity of 12,000 fiberglass boats a year.

The company, foremost U.S. manufacturer of small, lightweight diesel engines, will use the new plant to assemble its eleven model line of inboard and outboard fiberglass boats, introduced last Fall as the country's first complete line of diesel powered marine pleasure craft.

The plant consists of two buildings, each 24,000 square feet, on a ten acre site. Announcing the opening of the new facility was W. Denis Kendall, president of American Marc.

INDIANTOWN, FLA. — The Record Press Inc., one of New England's largest printing and publishing firms located in Rochester, New Hampshire, since 1878, announced that it will move to Florida and occupy two acres of land in the Indiantown Industrial Park and erect a plant of 28,000 square feet.

Mr. Brede Klefos, Executive Vice-President, stated that it was the company's intention to ultimately move its entire printing operation. Present plans call for the company to initially employ over 75 people.

DAWSON, GEORGIA — A new industrial plant will be built near here, E. H. Henderson, President and general manager of the Yale Rubber Manufacturing Company, has announced. Construction will begin by the middle of April, he said.

The plant will produce molded and extruded rubber goods, oil seals and miscellaneous parts used by automobile, farm machinery, road building and home appliance manufacturers. The estimated cost of the plant and machinery is $1 million.

Mr. Henderson said he expected the plant to begin operation in August of this year. Approximately 150 people will be employed initially, with possible future expansion calling for 250-300 employees.

The modern 60,000-square foot concrete and steel structure will be the first industry to be situated in Dawson's new 225-acre industrial district. It will be located on Georgia Highway 32 just west of the Dawson city limits and will be served by the Seaboard Airline Railroad.

LAKE CHARLES, LOUISIANA — Columbia-Southern Chemical Corporation has begun construction of an ethylene dichloride plant here. According to Joseph A. Neubauer, President, the plant will cost in excess of $1 million and initial production is scheduled for September, 1960.

Production of this organic compound will mark Columbia-Southern's entry into chemicals based on ethylene. The process for the new plant was developed by the research and development department at Columbia-Southern's Corpus Christi operation.

Ethylene dichloride is a basic material used in the production of vinyl chloride, the plastic currently used in upholstery, floor covering and similar products. In addition, large quantities of the chemical are required in conjunction with tetraethyl lead for the production of motor fluid.

The following is a summary of major industrial plants in the United States, Canada, and foreign countries, reported to INDUSTRIAL DEVELOPMENT during the month of March, 1960, by industries and industrial development organizations.

Number of employees is indicated by the code: A(Under 25); B(25-100); C(100-250); D(250-1,000); and E(over 1,000).

ALABAMA

Andalusia — Funsten Pecan Co. of Ala.; James Gatlin, Mgr. (Subs. of R. E. Funsten Co.) Processed pecans — canned and packet. Est. date of Oper., Oct., 1960. $300,000. (C)

Athens — Sweet Sue Kitchens; Jim Beasley, Pres. Cooked chicken, meat and prepared foods. In Oper. $200,000. (C)

Fairfield — Air Reduction Sales Co.; (Div. of Air Reduction Co., Inc.) R. E. Lenhard, Pres. In Oper. $Multi-million.

Foley — Gulf Coast Foundries; H. S. Barry, Pres. Aluminum furniture, ornamental aluminum, castings, and ironwork. Est. date of Oper., July, 1960. $200,000. (B)

ALASKA

No Plants Reported.

ARIZONA

No Plants Reported.

ARKANSAS

Clarksville — Herbst Shoe Mfg. Co.; Floyd L. Pleva, Plnt. Mgr. Shoes. Under Constr. $250,000. 36,000 Sq. Ft.

Hot Springs — Lake Catherine Footwear. Shoes. In Oper. 40,000 Sq. Ft. (D)

Jonesboro — Repcal Brass Mfg. Co.; (Div. of Crane Co.) Plumbing brass and low-pressure bronze valves. Under Constr. $6 million. 146,000 Sq. Ft. (D)

Ozark — F. S. Lumber Co.; Kenneth Smith, Offl. Pallets. Plans announced. (B)

CALIFORNIA

Belmont — Cutler-Hammer Inc.; Phillip Ryan, Pres. Motor control-lines and power distribution equipment. Est. date of Oper., Late Fall, 1960. Est. date of Constr., early Spring, 1960. 35,000 Sq. Ft.

Compton — Wolf Range Mfg. Co.; Alameda & 196th Streets. Restaurant ranges and commercial kitchen installations. Under Constr. $1 million. 100,000 Sq. Ft.

Los Angeles — Witfield Chem. Corp.; Dodecylbenzine chemical for detergents. Plans announced. $1.75 million.

Modesto — Boothe Packing Co.; Packing of government rations. In Oper. 46,000 Sq. Ft. (C)

Mojave — Texas Aluminum Co.; Richard Pickens, Pres. South Holt Ave. Melts, moulds and exturded aluminum extrusions for the Mfg. of Windows, doors, aircraft parts. Under Constr. $1 million. 20-acre site. 60,000 Sq. Ft. (D)

Redondo Beach — American Marc, Inc.; W. Denis Kendall, Pres. Inboard and outboard fiberglas boats. In Oper. $500,000. 48,000 Sq. Ft. 10-acre site.

San Diego — Electro-Instruments, Inc.; Jonathan Edwards, Offl. 8611 Balboa Ave. Electronics. Plans announced. 63,000 Sq. Ft. $289,000.

San Jose — American International Aluminum Corp.; Mr. Richard P. Walker, Pres. Brokaw Rd. Aluminum extrusions. Under Constr. Est. date of Oper., June, 1960. 5-acre site. $1.5 million. (C)

Van Nuys — Delta Lithograph Co.; Walter Wilkinson and Dale McCollough, Co-Owners. 14731 Califa Street. Lithography. In Oper. 20,800 Sq. Ft.

COLORADO

Denver — Denver Brick & Pipe Co.; 4501 Fox Street. Vitrified clay sewer pipe. Under Constr. Est. date of Oper., July, 1960. 42-acre site. 41,000 Sq. Ft. $1 million.

Denver — Keenan Pipe & Supply Co.; Dahlia Street. Oil, industrial plumbing and heating supplies. In Oper. 15,000 Sq. Ft. 3.72-acre site.

CONNECTICUT

Newtown — Plastics Molding Corp.; Plastic molding. Under Constr. $1 million.

Norwalk — Sperry Gyroscope Co.; (Div. of Sperry Rand Corp.) Semiconductor devices. Under Constr. $1 million.

DELAWARE

No Plants Reported.

DISTRICT OF COLUMBIA

No Plants Reported.

FLORIDA

Daytona Beach — Spacetronics, Inc.; Carl W. Bollum, Sr., Pres. Hydroaire vehicles. Est. date of Oper., June, 1960. 9,000 Sq. Ft. 14.7-acre site. (C)

Ft. Lauderdale — Riley-Kelly Aircraft, Ltd.; Aircraft conversions. In Oper. (B)

Groveland — Oakland Consolidated Inc.; Sand classifying plant. Est. date of Oper., 1960. 100-acre site. $250,000. (B)

Hialeah — Devices Research Corp.; Red. road & 18th St. Automotive and refrigeration parts. Est. date of Constr., 1960. 40,000 Sq. Ft.

Indiantown — The Record Press Inc.; Mr. Brede Klefos, Exec. V. Pres. Printing and publishing. Plans announced. 28,000 Sq. Ft. $750,000. 2-acre site. (B)

Jacksonville — Jacksonville Paper Co.; Thomas R. McGehee, Pres. Warehouse distribution center. Est. date of Oper., July, 1960. 80,000 Sq. Ft.

Jacksonville — The Maryland Companies; James H. Mott, Dist. Mgr. Paper cups, soda straws, ice cream cones and plastic containers distribution. In Oper. 20,000 Sq. Ft.

Port Malabar — Soroban Engineering, Inc.; Charles F. West, Pres. Data processing and control equip. and electro-mechanical components for automation and data processing applications, systems for digital computers, for high-speed communication networks and for automatic control operations. Est. date of Oper., end, 1960. 120,000 Sq. Ft. 40-acre site. $750,000. (D)

Quincy — Pat Higdon Industries; Pat Higdon, Owner. Juvenile furniture. Est. date of Oper., 1960. 12,000 Sq. Ft. (B)

Vero Beach — Piper Aircraft Corp.; Planes. Under Constr. $650,000. (D)

GEORGIA

Atlanta — Quality Park Envelope Co.; (Div. of Brown & Bigelow) Dean C. Mathews, Pres. 650 Murphy Ave. S.W. Creative, manufacturing and printing facilities. Envelopes and filing specialties. In Oper. (B)

Dawson — Yale Rubber Mfg. Co.; E. H. Henderson, Pres. & Gen. Mgr. Ga. Hwy. 32. Molded and extruded rubber goods, oil seals and misc. parts used by automobile, farm machinery, road building and home appliance mfg. Under Constr. Est. date of Oper., Aug. 1960. 60,000 Sq. Ft. $1 million. (C)

Valdosta — Wainer Brothers, Inc.; Asphalt. Plans announced. (B)

HAWAII

No Plants Reported.

THE TOP TEN

On the basis of the number of significant new plants reported in INDUSTRIAL DEVELOPMENT during the six month period ended April, 1960, here are the leading states in industrial expansion and the number of plants reported for each.

1.	TEXAS	67
2.	CALIFORNIA	64
3.	FLORIDA	63
4.	MASSACHUSETTS	54
5.	PENNSYLVANIA	52
6.	NORTH CAROLINA	45
7.	MISSISSIPPI	41
8.	MICHIGAN	34
9.	IOWA	30
10.	TENNESSEE	30

IDAHO

American Falls — Lamb-Weston Co.; Potato processing. Plans announced. 170-acre site. (D)

Burley — Ore-Ida Potato Products Co.; Golden Griggs, Pres. Potato processing. Est. date of Oper., Sept., 1960. (D)

Nampa — Hehr Mfg. Co.; Elmer T. Hehr, Pres., Industrial Road. Mobile home windows. Plans announced. 10,000 Sq. Ft.

Weiser — I. B. Perch Mfg. Co.; James Little, Mgr. Trailers. In Oper. (B)

ILLINOIS

Chicago — Radio Materials Co.; (Subs. of P. R. Mallory and Co.) Research and production center. Ceramic capacitors for radio, television and other electronic applications. Under Constr. 45,000 Sq. Ft.

Geneva — Glove-Union, Inc.; C. O. Wanvig Jr., Pres. Automotive batteries. Under Constr. Est. date of Oper., Oct.1960. $2 million. 110,000 Sq. Ft. 20-acre site.

Harvey — Allis-Chalmers Mfg. Co. Owen J. Higgins, Gen. Mgr. Diesel, natural gas, butane and gasoline engines. Under Constr. $Multi-million. 35-acre site. 515,000 Sq. Ft.

INDIANA

No Plants Repor.

IOWA

Winnfield — Skito veneer and Plywood Co.; M. C. Skito, Mgr. Wood products. Est. date of Oper., End, 1960. $250,000. (B)

KANSAS

Kansas City — Inland Asphalt Co.; Dan F. Scherrer, Owner. 107 Kansas Ave. Asphalt. In Oper. (B)

KENTUCKY

Catlettsburg — Pittsburgh Chem. Co.; (Subs. of Pittsburgh Coke & Chem. Co.) Granular coal-derived activated carbon. Est. date of Oper., Early, 1961. $4 million. 25-acre site.

Louisville — Boyles Galvanizing & Plating; Galvanizing & plating. Plans announced. (B)

LOUISIANA

Lake Charles — Columbia-Southern Chem. Corp.; Joseph A. Neubauer, Pres. Ethylene Dichloride. Under Constr. Est. date of Oper., Sept. 1960. $1 million.

MAINE

Scarborough — Herman Shoe Co.; Joseph Herman, Offl. Men's boots & work shoes. Est. date of Oper., Aug. 1960. $140,000. (B)

MARYLAND

Baltimore — Imco Mfg. and Sales Corp.; Irvin M. Cook, Pres. 815-25 North Pulaski St. Automobile brake shoes and parts. In Oper. 14,000 Sq. Ft.

Laurel — Marenka Metal Mfg. Co., Inc.; Stephen Marenka, Pres. Stainless steel hotel, restaurant and cafe equipment. Plans announced. 23,200 Sq. Ft.

MASSACHUSETTS

Bedford — Geophysics Corp. of America; Milton Greenberg, Pres. Research and Development. Est. date of Oper., Oct., 1960. 30,000 Sq. Ft. (C)

Cambridge — Simplex Wire & Cable Co.; Everett Moras, Pres. Mfg. wire and cable. Plans announced. 100,000 Sq. Ft. (E)

Medfield — Radio Frequency Corp., Inc.; J. D. C. Manwaring, Pres. Research and development in the induction field. Est. date of Oper., July, 1960. 35,000 Sq. Ft. (B)

Thompsonville — Hallmark Cards, Inc.; Arthur Coate, Plnt. Mgr. Manning Rd. Greeting cards. Plans announced. 122,000 Sq. Ft. 15-acre site.

Westfield — New England Pipe Co.; Concrete pipe. Est. date of Oper., Oct. 1960. (B)

Winthrop — Duval Industries; Industrial packaging. Est. date of Oper., Aug. 1960. 52,000 Sq. Ft. (B)

Worcester — Rice Barton Corp.; Research Laboratory. Est. date of Oper., July, 1960. $100,000. (D)

MICHIGAN

Grand Rapids — Keeler Brass Co.; M. S. Keeler II, Exec. V. Pres. 835 Curve St., S.W. Metal finishing. Under Constr. $500,000. 83,000 Sq. Ft. (C)

MINNESOTA

Golden Valley — General Mills, Inc.; Charles H. Bell, Pres. Flour, feeds, cereals, mixes, vitamins, starches, etc. Under Constr. $Multi-million (D)

Minneapolis — Minneapolis Brewing Co.; F. Kiewel, Pres. & Gen. Mgr. Malt beverages. Est. date of Oper., June, 1960. $1.3 million.

MISSISSIPPI

Bay St. Louis — Markel Industries; Screens & doors. In Oper. (B)

Clinton — Mississippi Carton Corp.; Cartons. Under Constr. 25-acre site. 30,000 Sq. Ft. $500,000.

Fulton — Garment Mfg. Co.; Sportswear. Est. date of Oper., July, 1960. (C)

Fulton — Mark Furniture Mfg. Co.; Juvenile chairs and related furniture. In Oper. (C)

Gattman — Gattman Garment Co.; Trousers and sportswear. Under Constr. 20,000 Sq. Ft. (D)

Holly Springs — Wurlitzer Co.; R. C. Rolfing, Pres. Musical instrument components. Plans announced. 60,000 Sq. Ft. $500,000. (D)

Laurel — Tant Packing Co.; Packing house. In Oper. (B)

Lumberton — Lumberton Pulp Mill; Wood Pulp. In Oper. $250,000. (C)

Meridian — W. L. Molding Co.; Plastics. In Oper. $300,000. (D)

Newton — La-Z-Boy, Inc.; Furniture. In Oper. $250,000. (D)

Oxford — Oxford Mfg. Co.; Slacks and other wearing apparel. Plans announced. 25,000 Sq. Ft. $130,000. 4-acre site. (C)

Ripley — Biltrite Rubber Co.; Shoe soles. Plans announced. $1.5 million. (D)

Tremont — Itawamba Mfg. Co.; Mr. Rex Brown, Pres. Sportswear. Plans announced. $100,000. 20,000 Sq. Ft. (D)

MISSOURI

No Plants Reported.

MONTANA

No Plants Reported.

NEBRASKA

Cozad — O. A. Cooper Co.; Guy Cooper, Offl. Wheat flour and formula feeds. Est. date of Oper., Oct., 1960. $500,000. (B)

NEVADA

No Plants Reported.

NEW HAMPSHIRE

No Plants Reported.

NEW JERSEY

Vineland — Venice Maid Co.; Vineland, N. J. Italian-Styled food products. In Oper. $1.5 million. 92,000 Sq. Ft. 45-acre site. (D)

NEW MEXICO

No Plants Reported.

NEW YORK

Albertson — Digitronics Corp.; Albert A. Auerbach, Pres. Albertson Ave. Electronic data processing equipment. Plans announced. 30,000 Sq. Ft.

Canandaigua — General Foods Corp.; (Birds Eye Div.) North Street and North Buffalo Rd. Frozen instant baby food. Est. date of Oper., Mid-1961. $1 million. 180,000 Sq. Ft. (C)

New Windsor — Frye Mfg. Co.; Marion C. Frye, Pres. Carbon Papers for printers, converters and forms manufacturers. Est. date of Oper., Summer, 1960. $270,000. 40,000 Sq. Ft. 5-acre site. (B)

NORTH CAROLINA

Clayton — Union Carbide Chem. Co.; Biological research laboratory. Under Constr. Est. date of Oper., Aug., 1960. 10,000 Sq. Ft. (A)

Fayetteville — Kings Point Mfg. Co., Inc.; M. M. Rose, Offl. Men's outer garments. In Oper. 30,000 Sq. Ft. (D)

Henderson — Fram-Aire Corp.; Filters for air conditioners and forced air heaters. In Oper. 40,000 Sq. Ft. (B)

Henderson — J. P. Taylor Tobacco Co.; John D. Rose, Jr., Offl. Tobacco processing. Est. date of Constr., June 1960. $1.5 million. 50-acre site. 125,000 Sq. Ft.

High Point — Eddystone Hosiery Mill Inc.; Ed. Freeae, Sec'y and Treas. Seamless hosiery. In Oper. $100,000. (B)

Marion — Washington Mills Co.; R. Arthur Spaugh, Pres. Route 40. Men's and boys' underwear, sportswear and sleepwear and sheetings and print cloth. Plans announced. 40,000 Sq. Ft. 78-acre site. $800,000. (D)

Rocky Mount — Futorian-Stratford Furniture Co.; Morris Futorian, Pres. NC Hwy 95. Reclining chairs and upholstered furniture. Plans announced. 350,000 Sq. Ft. 30-acre site. (D)

Shelby — Shelby Seamless Hosiery Mill, Inc.; E. Yates Mauney, Offl. Washburn Switch Rd. Est. date of Oper., Summer, 1960. 12,000 Sq. Ft.

Smithfield — Bright Leaf and Burley Tobacco Co.; E. P. Cunningham, Plant Mgr. Tobacco redrying. Plans announced. 115,000 Sq. Ft. (D)

NORTH DAKOTA

No Plants Reported.

OHIO

Akron — Gilchrist Warehouses, Inc.; P. P. Tell, Pres. 131 N. Summit St. Storage & warehousing. In Oper. $600,000. (B)

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SITE SELECTION HANDBOOK ANALYSIS

More than 900 new industrial development organizations offering assistance to site-seeking industrialists in the United States, Canada and Puerto Rico were reported to INDUSTRIAL DEVELOPMENT during 1959. Statistics compiled from the latest Site Selection Handbook edition of I.D. show that over 8,000 agencies are in operation in the United States, more than 20 in Puerto Rico and over 1,000 in Canada.

New York retained its first place position in the total number of development agencies with 478 such organizations. Maintaining second position was Pennsylvania showing a total of 460 groups. California was next with 422, and Texas held fourth place with 401.

Also among the "top ten" in the nation in total number of industrial development organizations are Florida with 344; Illinois, 318; North Carolina, 312; Georgia, 299; Massachusetts, 296; and Wisconsin, 264.

Some states have shown an outstanding growth in industrial development activities during the past year. Among them are Illinois, Minnesota, New Jersey, and Oklahoma.

Canada had a marked increase of 753 plant location groups, bringing the total to 1,104 which is approximately there times greater than the 1958 total of 351.

In viewing the growth of the United States by census region, the Handbook analysis reveals that the greatest growth is in the four-state West South Central region comprised of Arkansas, Louisiana, Oklahoma, and Texas, having an increase of 74 agencies; and the West North Central states of Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota, having an increase of 63 organizations.

The accompanying table compares findings of 1956, 1957, and 1958 with the latest edition. Reference must be made to the fact that, although a large number of new groups have come into being, basic improvements in the method of reporting are continually being made. However, a number of small organizations which list themselves as "developers" were eliminated when the publisher determined that they did not, in fact, offer specific plant location assistance to site seeking executives.

ALL GROUPS

REGION AND STATE	1959	1958	1957	1956
NEW ENGLAND	763	786	674	636
Connecticut	165	171	126	120
Maine	139	142	86	80
Massachusetts	296	311	285	268
New Hampshire	48	49	68	63
Rhode Island	61	62	58	48
Vermont	54	51	51	57
MIDDLE ATLANTIC	1,191	1,132	1,065	972
New Jersey	253	226	197	173
New York	478	460	454	382
Pennsylvania	460	446	414	417
SOUTH ATLANTIC	1,443	1,455	1,237	1,239
Delaware	20	21	22	16
District of Columbia	26	25	27	25
Florida	344	345	343	287
Georgia	299	302	172	176
Maryland	85	86	69	59
North Carolina	312	315	248	297
South Carolina	76	74	76	70
Virginia	153	156	158	202
West Virginia	128	131	122	107
EAST NORTH CENTRAL	1,149	1,101	1,058	996
Illinois	318	268	255	280
Indiana	99	98	95	100
Michigan	232	233	225	225
Ohio	236	235	231	190
Wisconsin	264	267	252	201
EAST SOUTH CENTRAL	560	554	538	470
Alabama	110	109	105	100
Kentucky	153	155	151	120
Mississippi	74	69	61	50
Tennessee	223	221	221	200
WEST NORTH CENTRAL	1,013	950	888	730
Iowa	215	222	214	54
Kansas	140	141	99	85
Minnesota	256	190	192	150
Missouri	262	257	239	210
Nebraska	82	83	83	75
North Dakota	21	20	21	21
South Dakota	37	37	40	35
WEST SOUTH CENTRAL	1,016	942	843	737
Arkansas	184	187	137	127
Louisiana	192	196	192	150
Oklahoma	239	146	127	110
Texas	401	413	387	350
MOUNTAIN STATES	406	428	370	261
Arizona	80	80	86	38
Colorado	73	73	64	58
Idaho	48	50	47	36
Montana	52	71	43	22
Nevada	27	27	18	17
New Mexico	52	51	44	26
Utah	35	37	38	34
Wyoming	39	39	30	30
PACIFIC STATES	600	610	539	357
California	422	431	357	210
Oregon	81	82	87	72
Washington	97	97	95	75
ALASKA	25	24	21	19
HAWAII	19	19	14	9
PUERTO RICO	23	18	23	5
TOTAL U.S. POSSESSIONS	8,208	8,019	7,270	6,431
CANADA	1,104	351	282	90
GRAND TOTAL	9,312	8,370	7,552	6,521

NEW PLANTS

Alliance — Larson Boat Works Co.; Herman Lehner, Plant Mgr. 1240 N. Rockhill Ext. Fiber glass boats. In Oper. $250,000. (C)

Cincinnati — American Motors Corp.; Chester & Glendale Milford Rds. Automotive parts. In Oper. $300,000.

Cincinnati — Dundee Cement Co.; Hwy 747. Distribution of cement. In Oper. $400,000.

Cleveland — Andrews Trucking Co.; B. F. Collins, Pres. 3939 Superior Ave. General cartage services. In Oper. (B)

Cleveland — Avery Label Co.; John S. Torrey, V. Pres. & Gen. Mgr. Pressure-sensitive (Self-adhesive) labels. Under Constr. 18,000 Sq. Ft.

Cleveland — Commercial Motor Freight, Inc.; Enri DeMaria, Pres. 13801 Brookpark Rd. Motor freight transportation. In Oper. $1 million. (C)

Cleveland — Moritz Steel Co.; D. A. Moritz, Offl. 6516 Juanita Ave. Steel service. In Oper. (B)

Cleveland — Towmoter Corp.; Euclid & Noble Rds. Gasoline powered fork lift trucks. In Oper. 50,000 Sq. Ft.

Dayton — Green Steel Co., Inc.; H. A. Green, Offl. 944 E. Monument Ave. Flat rolled steel products. In Oper. $300,000. (A)

Fremont — Crown Rubber Co.; Robert P. Johnson, Gen. Mgr. Foam products. Plant has been completed. 52,000 Sq. Ft.

Middletown — Armco Drainage & Metal Products, Inc.; Steel building mfg. plant. In Oper. $440,000.

Milford — Mosler Lock Co.; Frederick Huber, Mgr. Locks for banks, prisons and cabinets. In Oper. $500,000. (C)

New Concord — General Electric Co.; Electric products. In Oper. $3 million.

Solon — Master Power Corp.; (Subs. of Black & Decker Mfg. Co.) Harry L. Williamson, Jr., V. Pres. & Gen. Mgr. Cocharan Road. Air tools. Drills, screw drivers, nut runners, impact wrenches, sanders, grinders, vibrators, and air hoists. Plans announced. 50,100 Sq. Ft. 14-acre site. $700,000. (D)

Toledo — Ohio Fuel Gas Co.; Jefferson Ave. & Erie St. Natural Gas. In Oper. $1.278 million.

OKLAHOMA

No Plants Reported.

OREGON

Hillsboro — Armaco Drainage and Metal Products; D. J. Stoker, V. Pres. & Gen. Mgr. Drainage culverts. Plans announced. $500,000. 41,000 Sq. Ft. 16-acre site.

Portland — Carolina Biological Supply Co.; Biological supplies and specimens.

PENNSYLVANIA

Beaver — Babcock & Wilcox Co.; Steel bars for tubular products. Plans announced. $14.6 million. (C)

Berwick — Berwick Weaving, Inc.; Jacquard synthetic textiles. Plans announced. $250,000. (B)

Boyertown — Teleflex Industrial Products Inc.; C. C. Chisholm, Jr., Pres. Mechanical remote controls. Plans announced. (C)

Carlisle — Carlisle Corp.; Tires, inner tubes. Plans announced. $500,000. (B)

Chester — Scott Paper Co.; Paper products. Under Constr. Est. date of Oper., May, 1961. 152,000 Sq. Ft.

Edinboro — Edinboro Upholstery Inc.; Upholstered living room furniture. Plans announced. (B)

Harrisburg — Linde Co.; (Div. of Union Carbide Co.) Rail welding. Plans announced. $400,000. (B)

Leesport — Quaker Maid Kitchens, Inc.; Arthur D. Wenger, Pres. Custom made kitchens. Plans announced. 20-acre site. 125,000 Sq. Ft. (C)

Milroy — Alert Shoe Co.; Shoes. Plans announced. 12,000 Sq. Ft. (C)

Peckville — Beutel Shoes, Inc.; Joseph Beutel, Pres. Women's casual shoes. Plans announced. 20,000 Sq. Ft. (B)

Philadelphia — C & M Flooring Corp.; Benjamin Metz, Pres. Flooring. Plans announced. $160,000. (B)

Pittsburgh — Neville Cement Products Co.; Thomas MacCallum, Pres. Concrete slabs. Plans announced. $305,000. (B)

Pittsburgh — U. S. Concrete Co.; Concrete pipe. Plans announced. $500,000.

Trevose — Vector Mfg. Co.; Space telemetry equip. Under Constr. Est. date of Oper., Summer, 1960. $500,000. 25-acre site. 25,000 Sq. Ft.

Westland — Collins & Wright Co.; F. E. Stouffer, Pres. Electro-slate and fabricated metal. Plans announced. 14,000 Sq. Ft. (B)

Wheatland — Wheatland Tube Co.; E. J. Kavanagh, V. Pres. Electric conduit. Plans announced. $500,000. (B)

PUERTO RICO

Bayamon — Rau Fasteners Corp.; (Rau Findings Co., Providence, R. I.) Metal Fasteners. Plans announced. (B)

Bayamon — Southern Industries; (Exquisite Form, N. Y., N. Y.) Brassiers. Plans announced. (C)

Caguas — Brumberger Caribe, Inc.; (Brumberger Co., Inc., Brooklyn, N. Y.) Plastic toys. Plans announced. (C)

Naranjito — Manuela Mfg. Co., Inc.; (Top Form Mills, N. Y. C., N. Y.) Lingerie. Plans announced. (B)

Rio Piedras — Charlotte Brassiere Co.; (The Lovable Bra. Co., Atlanta, Ga.) Brassieres. Plans announced. (C)

RHODE ISLAND

No Plants Reported.

SOUTH CAROLINA

No Plants Reported.

SOUTH DAKOTA

No Plants Reported.

TENNESSEE

Clinton — Remke, Inc.; Ted Remke, Pres. U.S. 25-W & Granite Rd. Special truck bodies. Plans announced. 26-acre site. 20,000 Sq. Ft. (B)

I. D. CALENDAR — 1960

MAY 18

West Virginia Industrial and Publicity Commission Industrial Conference, Blackwater Falls State Park, West Virginia. Arrangements being made by the Industrial & Publicity Commission, State Capitol Building, Charleston, West Virginia.

MAY 22-26

The American Society of planning Officials 26th National Planning Conference, Americana Hotel, Bal Harbour, Miami Beach, Florida.

JUNE 1-2

Statewide Town Meeting, Columbus, Ohio, Arrangements being made by Bob Wolfe, Ohio Power Co., Canton, Ohio.

JUNE 9-10

California Industrial Development Conference, Los Angeles Biltmore Hotel, Los Angeles California. Arrangements being made by the Industrial Department of the Los Angeles Chamber of Commerce, 404 South Bixel Street, Los Angeles 54, California.

Columbia — Columbia Togs, Inc.; A. Wexler and E. Heller, Owners. Sportswear. Plans announced. (C)

Hohenwald — American Biltrite Rubber Corp.; Fire hose. Plans announced. $3 million. (D)

Jellico — Jellico Textile Corp.; Jake Mitchell, Pres. Sportswear. In Oper. (C)

LaFollette — LaFollette Casket Co.; Wooden, steel and fiberglass coffins. In Oper. (B)

Murfreesboro — Park Industries, Inc.; J. G. Marchel, Gen. Mgr. Windproof pocket lighters, steel measure tapes, cigarette cases. In Oper. (B)

Murfreesboro — Perfect Equipment. Corp.; Wheel balance weights. Plans announced. $100,000. (B)

New Johnsonville — Foote Mineral Co.; Electrolytic manganese. Plans announced. $Multi-million. (D)

TEXAS

Addicks — United Carbon Co., Inc.; Richard W. French, Pres. Research center. Under Constr. $2.5 million. 32-acre site. 77,000 Sq. Ft.

Beaumont — Houston Chem. Corp.; (Subs. of Chatham Chem. Corp.) E. Paul Wilkinson, V. Pres. Chemicals. Est. date of Constr., 1960. Est. date of Oper., Late 1961. $12 million. 40-acre site. (C)

El Paso — Duo-Bed Corp.; Elliott Frey, Pres. Hotel Furniture, dormitory equipment and silk screen wallpaper. Plans announced. 100,000 Sq. Ft. $500,000.

Houston — Anheuser-Busch, Inc.; August A. Busch, Jr., Pres. Brewery. Est. date of Constr., Fall, 1960. Est. date of Oper., Late 1961. $30 million. 60-acre site. (D)

Houston — Canada Dry Beverage Co.; Thomas A. McCarthy, Pres. 6846 Lindbergh. Soft Drink Bottling. Under Constr. Est. date of Oper., April, 1960. 32,000 Sq. Ft.

Houston — Centrifix Corp.; Paul A. Condit, Chrmn. of the Bd. Industrial purifiers and separators. Plans announced. 20,000 Sq. Ft. (B)

Houston — Sinclair Oil Co., & Koppers, Inc.; Plastic base chemical, styrene monomer. Under Constr. Est. date of Oper., Mid-1961. $9 million.

Longview — Longview Machine Works; H. T. Wellman, Owner. Plant and warehouse. Est. date of Oper., June, 1960. 5-acre site. 15,500 Sq. Ft. (B)

Mesquite — Dal-Worth Paint Mfg. Co.; Charles M. Lundquest, V. Pres. & Mgr. Paint and dry-wall products. Est. date of Oper., June, 1960. Under Constr. 20,000 Sq. Ft.

Richardson — Vent-A-Hood Co.; Miles Woodall, Mgr. Partner. Kitchen ventilation equipment. Est. date of Constr., Summer, 1960. Est. date of Oper., Late 1960. 75,000 Sq. Ft. 44-acre site. (B)

Sulphur Springs — H. D. Lee Co.; Leonard W. Staples, Pres. Interstate 30. Work clothing. Plans announced. $400,000. 70,000 Sq. Ft. (B)

Tyler — Creme Lure Co.; Nick Creme, Pres. Plastic artificial fishing lures. Under Constr. 10,000 Sq. Ft.

UTAH

No Plants Reported.

VERMONT

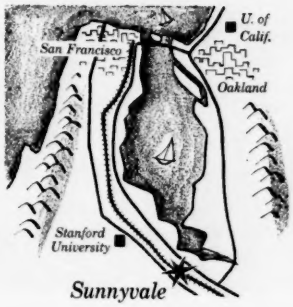
No Plants Reported.

VIRGINIA

Kenbridge — David M. Lea Co.; Wooden shipping containers and furniture. Under Constr. 70-acre tract. $250,000.

Kenbridge — Imperial processing Co.; Tobacco processing for cigar fillers. In Oper. $250,000. (B)

California Industrial Sites in Sunnyvale



Join 65 great industrial names who have built their plants in this thriving balanced community of low property costs . . . excellent transportation facilities . . . ample labor supply and sound city management.

WRITE TODAY FOR DETAILED, ILLUSTRATED BROCHURE. NO OBLIGATION. ALL INQUIRIES HELD CONFIDENTIAL!

Sunnyvale Chamber of Commerce, Sunnyvale, California

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ALL INQUIRIES HELD CONFIDENTIAL

Extra durability is a *bonus* you get along with many other proved advantages of Kinnear Rolling Doors.

Striking new proof of this was recently added to Kinnear's records of remarkably long door service: A whole battery of Kinnear Doors with 50 years of service in a busy shipping terminal *were removed from the old building for continued use in the modern structure that replaced it!*

That's why it's important to you that every Kinnear Door is *Registered*. Detailed drawings of each door are kept permanently in Kinnear's own fireproof vaults.

This is a Kinnear service that started before the turn of the century (when Kinnear *originated* the door with the interlocking-slat curtain).

You can be sure that, *at any time in the future*, correct replacement for any worn or damaged parts of any Kinnear Rolling Door will be available promptly.

In addition, Kinnear Rolling Doors save space . . . coil completely out of the way . . . clear the entire opening . . . remain out of reach of damage while opened . . . complement any building architecture . . . and assure all-metal protection against wind, weather, trespass or vandalism. Built to fit any opening, in new or old buildings. Power operated if desired. *Write for full details!*

The KINNEAR Manufacturing Company

FACTORIES: 1600-20 Fields Ave., Columbus 16, Ohio; 1742 Yosemite Ave., San Francisco 24, Calif.

Offices and Agents in All Principal Cities

Saving Ways in Doorways

KINNEAR ROLLING DOORS

NEW PLANTS

Lee Hall — Dow Chem. Co.; Nylon (Raw material for tire cord). Under Constr. Est. date of Oper., 1961. 600-acre site. $Multi-million. (D)

Petersburg — Jefferson Mfg. Co.; Keeye Marks, Bd. Chmn. Under Constr. Est. date of Oper., August, 1960. 20,000 Sq. Ft. 6-acre site. (C)

WASHINGTON

Spokane — United Retail Merchants, Inc.; Fritz F. Bawater, Pres. Warehouse. Plans announced. $1.75 million.

WEST VIRGINIA

No Plants Reported.

WISCONSIN

Middleton — American Scientific Laboratories, Inc.; Hubert D. White, Pres. Biologicals, and pharmaceuticals. Est. date of Oper., Late 1960. $1 million. (C)

Neenal — Stowe-Woodword, Inc.; David W. Stapleton, Pres. Rubber covered rolls. Est. date of Oper., July, 1960. $300,000. (B)

Oshkosh — Standard Coil Products, Inc.; James O. Burke, Pres. Television tuners, and electronic equipment. Est. date of Oper., July, 1960. (D)

WYOMING

No Plants Reported.

CANADA

ALBERTA

Edmonton — Tube-Kote, Inc.; E. G. Holm, Exec. V. Pres. Pipe coating. Est. date of Oper., Sept. 1960. $300,000. (B)

BRITISH COLUMBIA

Bamberton — B. C. Cement Co. Ltd.; Cement. Plans announced. $750,000.

Kitimat — Terrace. B. C. Power Commission; Electric power. Plans announced. $1.4 million.

Vancouver — Rothman's of Canada; Cigarettes. Plans announced. $1.5 million (D)

MANITOBA
NEW BRUNSWICK
NEWFOUNDLAND
NOVA SCOTIA

No Plants Reported.

ONTARIO

Burlington — F. W. Fearman Co.; Meat packers and processors. Under Constr. 15-acre site. 60,000 Sq. Ft.

Burlington — Fuller Brush Co.; Household articles. Under Constr. 200,000 Sq. Ft. 25-acre site.

Burlington — Wiens Screw Co.; Automatic screw machine products. Under Constr. 11,900 Sq. Ft.

PRINCE EDWARD ISLE
QUEBEC
SASKATCHEWAN

No Plants Reported.

FOREIGN

Egypt — Aswan. Bedische Anilin & Soda-Fabrik; Calcium ammonium nitrate plant. Under Constr. Est. date of Oper., Late 1960.

Germany — Armstrong Kork, GMBH: E. V-R. Cromwell, Gen. Mgr. Resilient flooring. Est. date of Constr., May, 1960. Est. date of Oper., Mid-1961. 100,000 Sq. Ft. 27-acre site.

India — Ennore. East India Distilleries & Sugar Factories, Ltd.; Fertilizer, sulfuric acid, phosphoric acid and synthetic ammonia. Est. date of Oper., 1962. $8 million.

Japan — Otake. Mitsui Chemical; Polypropylene chemical. Under Constr. Est. date of Oper., late 1961. $9 million.

Sweden — Gothenburg. Hercules Kemiska Aktiebolog; (Subs. of Hercules Powder Co.) Prosper F. Neumann, Mgr. Dir. Chemicals. Plans announced.

West Indies — Jamaica. Commodore Industries Ltd.; Typewriters, portable transistor radios and typewriter cases. Under Constr. Est. date of Oper., May, 1960. (C)

DIRECTED BY
Richard Edmonds ..1882-1930
Frank Gould 1930-1943
William Beury 1943-1955
McKinley Conway..1956

MANUFACTURERS RECORD
(IN REVIEW)

"What Enriches Any Region Enriches The Nation"

MAY 1886 (AS ABSTRACTED MORE THAN 70 YEARS LATER) BALTIMORE, MD

Western Enterprise

A gentleman who lives in Portland, Ore., while in Nashville some days ago, wrote the following letter to the Nashville American:

"I hear some talk of raising $5,000 by subscription for the purpose of advertising Nashville. I am led to wonder what can be done in that direction with $5,000. It would not reach as far as Louisville. Why, out in Portland, Ore., where I live, they would think no more of $5,000 than people do in the East of a 5-cent nickel. In 1888 the business men donated $12,000 every month during the whole year, the amount being expended by the Board of Immigration. Some firms subscribed $50 per month, many $25, among whom were several Chinese merchants and bankers. Scores gave $10 to $20 a month, and every mother's son in the town gave something. That's the way the West gets boomed!"

Here is an example for the South to follow. One town spending $12,000 a month, or $144,000 a year, for advertising. The MANUFACTURERS RECORD has boasted of Southern energy and enterprise, but it must admit that it has not seen anything on this scale in the South. A Southern town of good advantages that judiciously spent one-half of this sum in a year in advertising would have such a boom as to astonish the country.

Henry Villard Lauded

The mammoth enterprise in which Henry Villard, of North Pacific railroad fame is engaged is worth noting, because it shows that men of the highest reputation for foresight and practical force appreciate the value of great water powers as economic means for generating electric currents to be employed for illuminating and physical power purposes.

The story as told by newspaper specials is that Mr. Villard has obtained a controlling interest in the horse, cable and electric street-car systems of St. Paul and Minneapolis, the "twin sister cities" of Minnesota. Prior to this it was announced that Mr. Villard had completed his plans for the utilization of the enormous water-power of the river at Meeker Island, which lies in the stream midway between the two cities.

It is the purpose of Mr. Villard to take this mighty power, to convert it into electricity, and to supply lights, power for manufactories and power for the street railway systems of the twin cities.

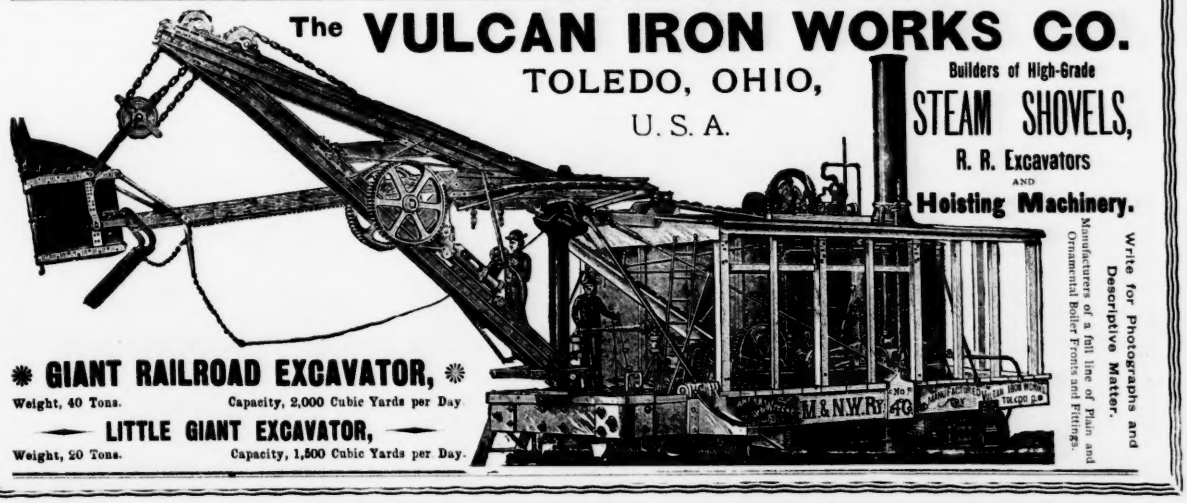
This great movement, made by a man whose practical ability is cheerfully conceded by the capitalists of this country and of Europe, shows that the MANUFACTURERS RECORD has been altogether right in urging upon Southern cities and towns the utilization of the streams in their close proximity for illumination and for power for their manufactories.

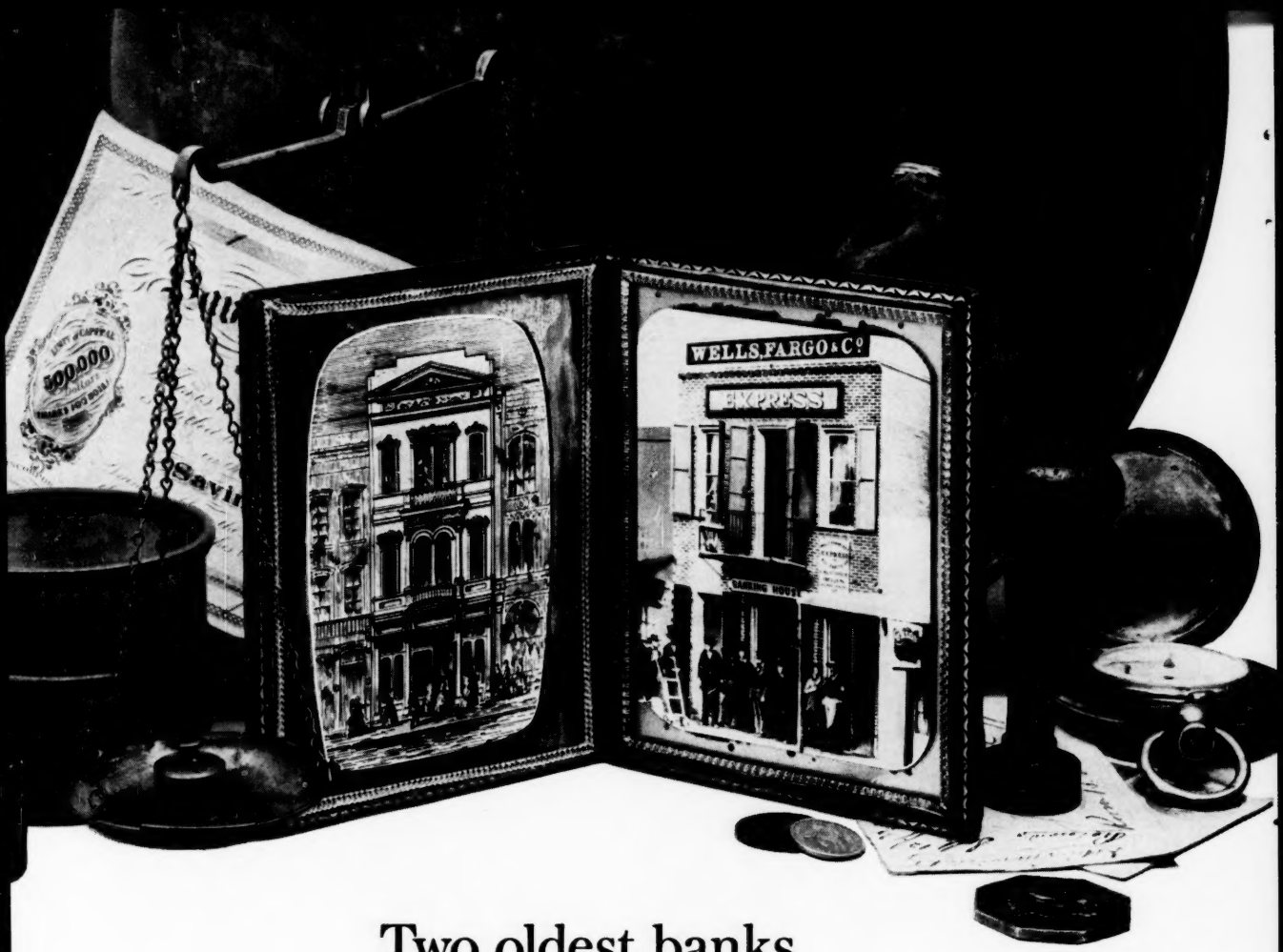
Sensational Calumny

The mischief that may be done by thoughtless newspaper sensationalists has had a recent illustration in two of the Gulf States. A very large party of New England and Middle State people were making an excursion. Many of them were persons of more than local distinction, and nearly all were of that sterling, well-to-do middle class that comprises the worth and conservatism of Northern communities. At one of the places visited a few men in the party got drunk and behaved disgracefully. A special was sent to a great newspaper in an adjoining state making much of the affair and conveying the impression that at least half the party were "roughs." The party was called "the Vermont excursionists," thus casting a stigma upon the citizens of that commonwealth. The writer, referring to them said: "The party is composed of two classes, one apparently decent, and the others decidedly tough." The next day, a paper published in the town where the few tourists disgraced themselves, gave a few lines of retraction among its local items, distinctly stating that upon a careful investigation of the facts it was ascertained that less than half a dozen men had any part in the disgusting scenes recounted. The special has been copied all over the country, but no one seems to have thought it necessary to send the correction out to overtake it.

We must confess our surprise that the intelligent, brainy, and public-spirited editors of influencial Southern papers permit such sensational stories to appear without first taking some pains to get at the truth. In this case a party of one hundred or more respectable people from five Northern states, are represented, some as "apparently respectable," the remainder as "toughs." Wherever they should stop over after leaving that place, its citizens would have formed an opinion in advance of the character of the party, and would naturally treat its members with cold courtesy. And when they returned to their Northern homes the tourists would hear many unpleasant comments.

This may seem to some too small a matter to treat seriously, but it is just such trivial things that cause interstate as well as neighborhood unpleasantnesses. The Scriptures warn us to beware of "the foxes, the little foxes," and a calumny like that noted may be properly so classed.


The VULCAN IRON WORKS CO.
TOLEDO, OHIO,
U. S. A.
Builders of High-Grade
STEAM SHOVELS,
R. R. Excavators
AND
Hoisting Machinery.
Write for Photographs and Descriptive Matter.
Manufacturers of a full line of Plain and Ornamental Boiler Fronts and Fittings.
GIANT RAILROAD EXCAVATOR,
Weight, 40 Tons. Capacity, 2,000 Cubic Yards per Day.
LITTLE GIANT EXCAVATOR,
Weight, 20 Tons. Capacity, 1,500 Cubic Yards per Day.
M&NW.Ry



Two oldest banks in the West now one bank

American Trust Company and Wells Fargo Bank have joined forces to better serve rapidly growing Northern California. As two banks, we have shared a heritage of history, an ideal of service that have made us natural partners since the feverish 1850's. Now, to this common philosophy, we add the combined skill of our well-trained staffs, the pooling of specialized experience, a substantial expansion of deposits and capital. On this sound foundation, our bank is in a strong position to meet the needs of all customers. Today, as Wells Fargo Bank American Trust Company, we welcome the challenge of the years ahead.

HEAD OFFICE: SAN FRANCISCO

Resources in excess of $2,400,000,000 *Capital Funds $165,000,000*

WELLS FARGO BANK

1852

AMERICAN TRUST COMPANY

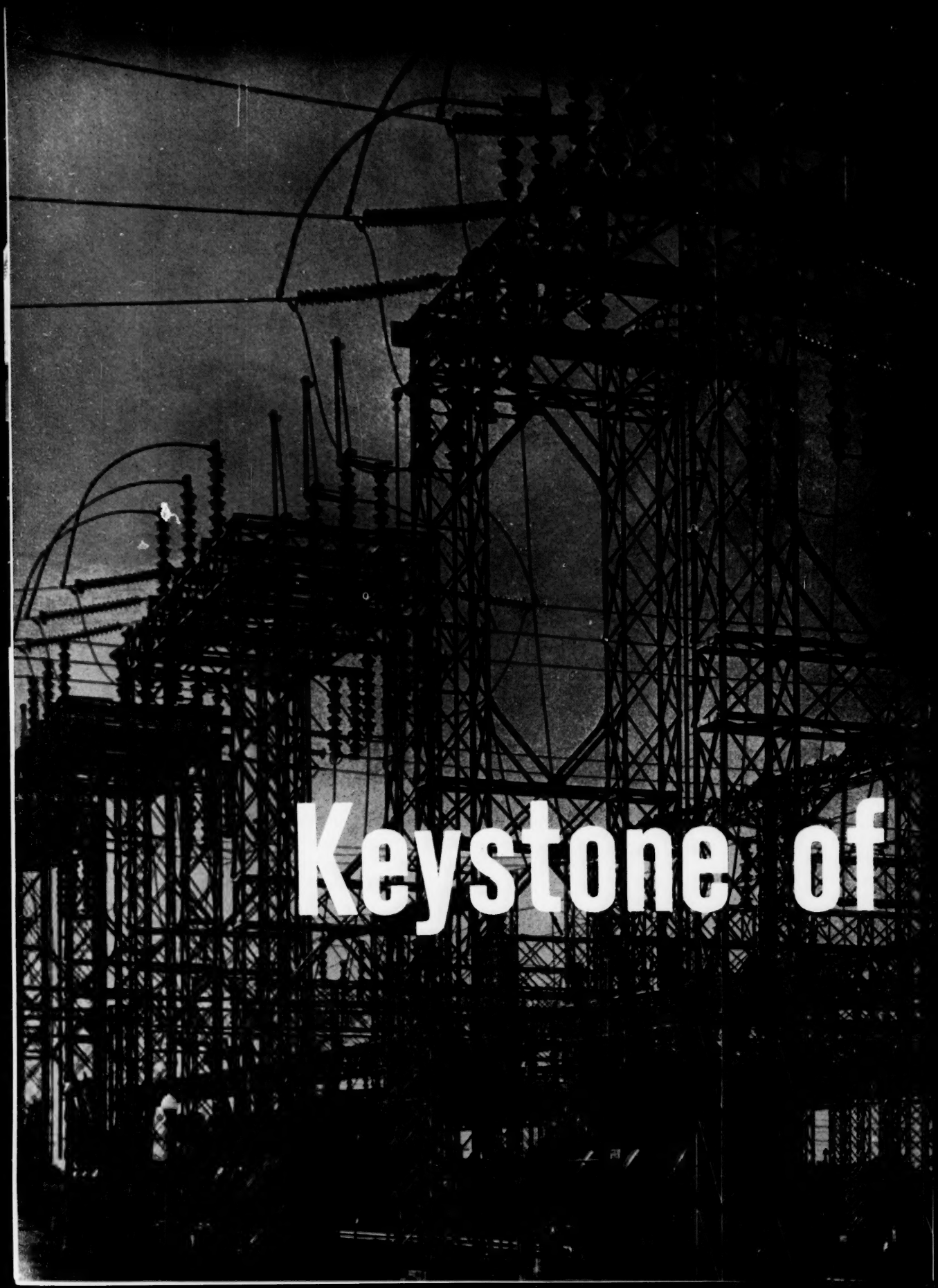
MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION
MEMBER FEDERAL RESERVE SYSTEM

The CALIFORNIA of Pacific Gas and Electric

With six and a half million people and one of the world's most admired cities within its bounds, Northern and Central California is a well-established world center of trade, transportation, industry, agriculture and intellectual activity. Its people have an assurance and urbanity that comes from a history of accepted responsibility.

AN AREA SURVEY BY INDUSTRIAL DEVELOPMENT MANUFACTURERS RECORD

THE INTERNATIONAL GUIDE TO INDUSTRIAL PLANNING AND EXPANSION


Keystone of

the West Coast

Three main factors account for the rapid expansion of industry now going on in Up-state California. One is the great wealth of material resources — the nation's most productive farms and the output of its forests, fisheries, and mineral properties. Another is the feeling that business and professional men have about the area as a place for doing business and bringing up a family. The third is the large and rapidly growing market.

The world has been hearing about California — and going there to see — ever since gold was found in 1848 at Sutter's mill. The area of earliest interest lay in the northern and central parts of the state, since nearly all the gold was there.

The gold seekers' California, focused on San Francisco Bay, is still there. It is less violent, but just as vital. And it turns out more wealth in a day than the early placers yielded in months. But not much of it is gold.

It is more apt to be steel or cement or chemicals — missiles or ships or automobiles — grapes or peaches or plums. Or any one of an extremely long list, for this is one of the most varied and complex economic regions to be found anywhere in the world.

Substantially all this region is in the Pacific Gas and Electric Company's service area, which extends from the crest of the Sierra Nevada westward to the ocean, thus including the great agricultural heart of California, its natural outlet through San Francisco Bay, and two-thirds of the California coast, with the forests and mines of the Sierra and the Coast Range thrown in for good measure.

From the Klamath River and Shasta Lake near the northern boundary southward for 500 miles to the Tehachapi Mountains, PG&E supplies both power and natural gas. It also supplies natural gas to mineral operations in the Mojave Desert eastward from the Tehachapis in Kern County to the Arizona line.

In the 94,000 or so square miles of this area live an estimated 6.5 million people — only seven states have more. The San Francisco-Oakland metropolitan area has 2.8 million of these, and the Bay Area as a whole, including Santa Clara, Sonoma, and Napa counties, has 3.7 million.

Other major centers are the four chief Central Valley cities, Sacramento, Fresno, Stockton, and Bakersfield, with city populations estimated by Sales Management Magazine at 171,200, 123,700, 86,300 and 54,100, respectively. Bakersfield's unincorporated adjunct, East Bakersfield, is quoted at 60,600.

Steady Growth

California's population growth has been greater than that of any other state — in absolute terms — in every census since 1920, and by 1965 the total population is likely to pass that of New York.

Present indications are that Northern and Central California are now pulling abreast of the southern part of the state, and will grow even more rapidly in the future.

For one thing, it has most of California's level land and most of the water, so its agricultural future is assured. Most of the lumber comes from this part of the state, and a good share of its mineral production.

A major consumer market in its own right, the area is also the financial and distribution center for a vast part of the West and the gateway to the Orient and other areas bordering the Pacific. Overnight from Southern California, it also has good connections with the increasingly important Pacific Northwest.

During World War II the main war industry was shipbuilding, while the aircraft industry concentrated in Los Angeles and San Diego. The aircraft industry revived after the post-war cutbacks, whereas shipbuilding contracted more or less to its pre-war status.

Meanwhile a new complex of electronic and nuclear industries has grown up in the Bay Area and inland that is a very strong competitor in the missile field, whereas the airframe industry is faced with declining military orders.

Mountains Over A Great Valley

The major land forms of the area are fairly simple in plan. The Sierra is a vast block of crystalline rocks, thrust up high over the bordering eastern valley but sloping more gently toward the west. Mountain glaciers carved out the Alpine scenery of the higher peaks and gouged U-shaped valleys extending far down the western slope, creating the wonders of Yosemite in the process.

The Central Valley is the floor gradually built up by the wasting Sierra, and is remarkably level over large areas, so that the Sacramento and San Joaquin rivers wander in wide-swinging meanders on their way to San Francisco Bay.

The Coast Ranges are not very high, but are wide and complicated enough to give great strategic value to the single major break, which makes the Golden Gate a funnel.

The Central Valley is closed at both ends, but not very securely to the south and Los Angeles has managed to extend its trade area over the low Tehachapi Mountains into the southern end of the valley.

California Really Is Mediterranean

During the winter mild, moist Pacific air penetrates the entire region, bringing moderate temperatures and a good supply of rain to the lower elevations and heavy snows to the Sierra. During the summer, humidity drops to very low levels in the Central Valley as temperatures rise, and only the coastal areas feel the influence of the ocean — in the form of fog rather than rain.

The winter-rain, summer-drouth combination is found in this country only in California, although it is widespread around the Mediterranean Sea. It is no accident that California looks like Italy and North Africa.

The mild winter temperatures favor all kinds of subtropical plants and the winter rains mean good foraging for livestock, but the long, dry summer, while ideal for outdoor living, involves almost complete dependence on irrigation for crops.

The Coast Ranges and the broad western slope of the Sierra get enough rain — and snow — to support one of the most magnificent forests in the world, including giant redwoods and sequoias. And the melting snow in spring and summer keeps the streams alive to feed irrigation canals in the lowlands.

Putting Water to Work

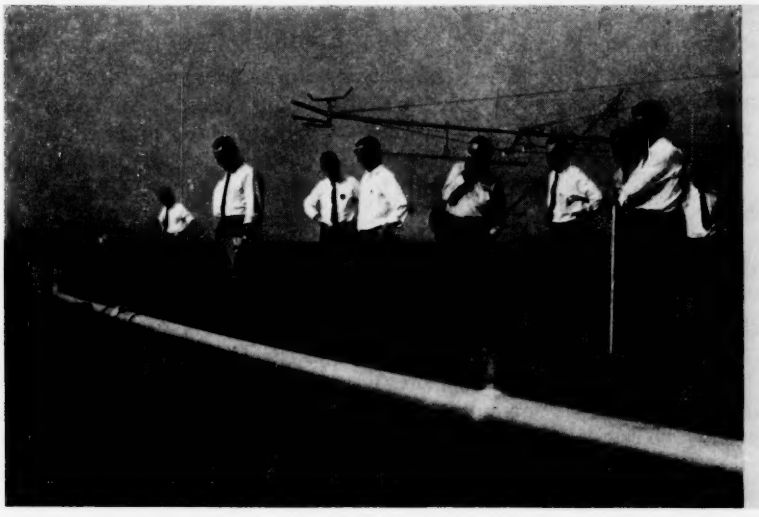
Moving water around has been a major factor in California life from the beginning. The early missions did some irrigation and the Forty-niners and their successors developed fairly sizeable flumes and chutes and canals to wash large quantities of gravel.

Later on, the development of hydroelectric power brought the construction of many dams in the Sierras, mostly small at first, but larger and larger as technology advanced and power needs grew. The impounded water could be used also for irrigation or municipal water supply, and multiple-use projects came into being.

As large-scale irrigation got underway in the Central Valley, whole districts were transformed from open range land that was of little use during the long dry summer into rectangular tracts honeycombed with irrigation ditches and capable of enormous yields of almost any kind of crop.

In the early stages, development was confined to areas that could be reached easily from a single upstream source. Later on, several dams would be developed on a single stream to make use of its full power potential, and tunnels were cut

Put together a long growing season, rich alluvial soil, a source of irrigation water and power to pump it. Result— top agricultural yields in the nation.



PG&E calls its farm power advisors together from time to time to keep them posted on new wrinkles in irrigation and other farm techniques. Each returns to his area and passes on to the farmers the ideas most useful to them.

through divides to take advantage of greater drops. As irrigated tracts grew and coalesced, water was brought considerable distances by main diversion canals or aqueducts, or was pumped from underground sources.

As more and more of the many streams draining the Sierra were put to work, it became obvious that Nature had not arranged things in the most useful way possible. The heaviest rainfull and shortest period of summer drouth was in the north, where the upper Sacramento and its tributaries emerge onto the narrow northern end of the Central Valley. But the greatest need for water was in the broad southern end of the valley, which has a vast expanse of level land.

Meanwhile, both San Francisco and Oakland had reached across to the central Sierra to develop the Hetch Hetchy and Mokelumne reservoirs, respectively, as municipal water supplies for themselves and neighboring communities.

Thus the need for overall planning of water use became apparent, and the Central Valley Project and a whole series of related schemes began to take shape, the underlying purpose being to transport as much as possible of Northern California's surplus down to the southern end of the valley and possibly beyond.

Almost every year, one or more major dams, canals or connecting links is put into operation, and the storage capacity of reservoirs is numbered in the millions of acre-feet. The largest unit is the Central Valley Project's Shasta Dam on the upper Sacramento; it has formed Shasta Lake, currently the eighth largest reservoir in

the country, with 4.5 million acre-feet.

The U.S. Corps of Engineers, the State of California, and various irrigation and flood control districts are other public bodies heavily involved. Pacific Gas and Electric is the leading privately financed water user; its 63 hydroelectric plants supply no less than 1,922,500 kilowatts, or about 37 per cent of its generating capacity. About 1.8 million acre-feet of water is stored in reservoirs owned or operated by PG&E.

There will ultimately be connections with some of the drainage basins in northernmost California. Because of heavy rainfall, these have considerable flows despite limited catchment areas, and very little use is currently made of their flow.

Top Agricultural State

Despite the lack of summer rainfall and the very large proportion of the state that is too mountainous for cultivation, California has moved into first place among agricultural states in value of crops and livestock produced. Moreover, it is not likely to be displaced, as irrigated land almost invariably has a higher yield than non-irrigated land, and California has nearly one quarter of the nation's irrigated area.

A look at the 200 leading agricultural counties in the Survey of Buying Power put out by Sales Management magazine is most revealing. Northern and Central California has no less than 18 of the first 200, including three of the first four and eleven of the first 30. Admittedly, some of the California counties are very large, but most of these include vast tracts of mountains or desert, so that cultivated acreage is not far out of line with counties in other states.

The cornucopia so frequently used to symbolize agricultural wealth and variety is generally overflowing with colorful fruits and vegetables and the more prosaic grains are played down. As such, it is a particularly apt description of California agriculture.

No less than 20 agricultural products exceeded $40 million in value of output in 1956, and the only two grains on the list — barley and rice — are in the second ten. Corn, wheat and hogs, so important in the great agricultural states of the Middle West, do not appear.

The specialties of the state — those items in which California's share of production is large relatively and comes to a big absolute figure — are grapes, tomatoes, oranges, lettuce, peaches, plums, almonds, lemons, strawberries and sugar beets.

The major recent developments in California agriculture have been the big increase in cotton, mainly in the San Joaquin Valley, and the big increase in dairy and poultry production and beef cattle. The tremendous increase in population has been a big factor in bringing this about, as there is now a very sizeable local market for milk, eggs and meat. Much of the large hay crop is irrigated alfalfa and that — plus citrus and sugar beet waste and cotton seed cake — makes a respectable amount of available feed.

The 71 per cent of California's total agricultural income that came from Northern and Central California in 1954 has probably increased, if anything, since that time. The reason — a major portion of Southern California production is from Los Angeles and Orange counties, where urban growth year by year gobbles up more agricultural land. Furthermore, the areas where new water supplies have made possible additional irrigation are mainly in the Sacramento and San Joaquin valleys.

Some important crops, however, are grown mainly in the South — for example, oranges — or almost entirely so — lemons, dates and avocadoes. On the other hand, practically all of the rice and the temperate fruits come from up-state.

Land of the Great Trees

Of the 17.3 million acres of commercial forest land in California, at least three-quarters is in the area served by PG&E. The remainder is in the northernmost counties of the state.

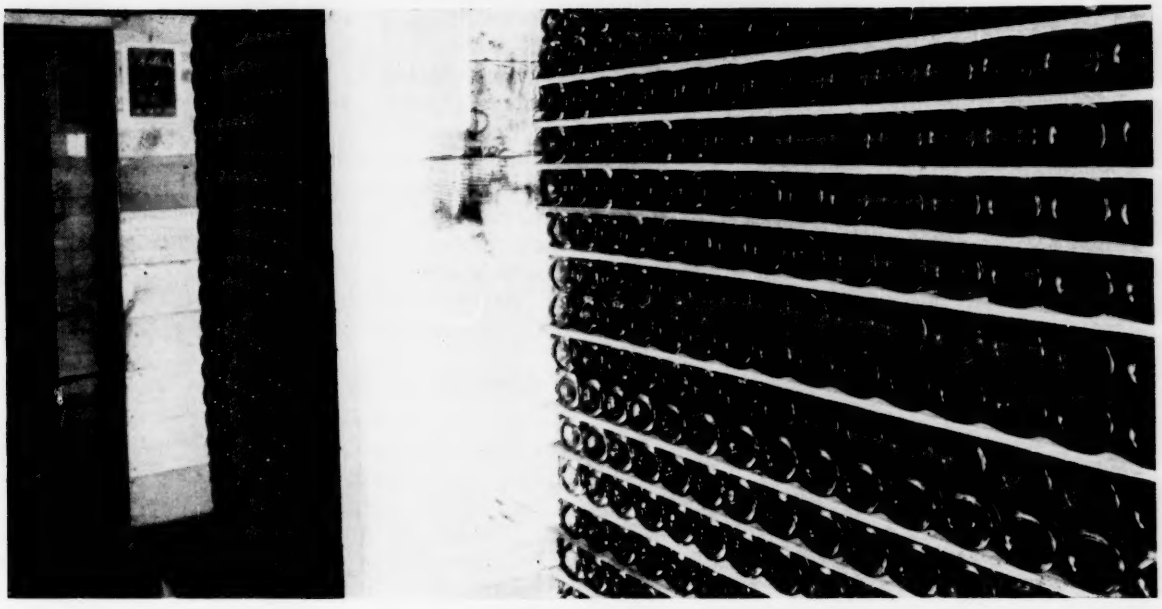
Lumber production in the state has run at about one-eighth of the national total in recent years. In some respects, California ranks second nationally after Oregon, for example in net volume and net annual cut of saw timber from commercial forest land.

In net annual growth of saw timber, California is also outranked by Georgia and North Carolina, but not if hardwoods are excluded.

In any case, California is bound to continue indefinitely as a major source of lumber since vast areas in the Coast Ranges and the Sierra are being operated on a sustained yield basis. Leading species produced are Douglas fir, true firs, ponderosa pine, redwood, and sugar pine.

Tops in Fish Too

California has nosed out Massachusetts to rank as the leading state in value of fish landed, amounting to $50 million or more in recent years. Northern and Central California ports — chiefly Monterey, San Francisco and Eureka — used to share about equally with those farther south, but



Californians are very discriminating with regard to wines and have stimulated local wineries to produce a great variety comparable to the very best from Europe. This is part of the stock of the Beaulieu Winery in Napa County, a major source of high-grade table wines.

in the early 1950's the sardines that made Monterey's Cannery Row famous all but disappeared.

Recently a major return of the sardines seems to be in the making, and it may be that some of the ground lost to San Diego and Los Angeles will be regained. Meanwhile, restaurants in Monterey and Fishermen's Wharf in San Francisco retain their reputations for all kinds of marine delicacies; some of them, such as abalone, are hardly known elsewhere.

Buried Treasure

Only because there is now so much else in California, mineral wealth no longer looms so large as in early days. To be sure, gold production has fallen off greatly, primarily because of the fixed price of gold; the famous Mother Lode and the Central Valley gravels are by no means exhausted and would still yield handsomely if the price should rise.

Since the turn of the century, California has been a major oil producer and in recent years it has been in a running battle with Louisiana for second place after Texas. Production is on the order of 300 million barrels annually, about 40 per cent of it in Central California.

The Bakersfield area normally is first in the state, and Fresno County is frequently fourth. Part of the appreciable production in Santa Barbara County falls within PG&E territory.

Natural gas production generally centers somewhat farther north than crude oil, and more than half of the state's 500 billion cubic feet of output comes from the Central Valley. Some of it comes from the Sacramento-Stockton area, which has no crude oil.

Production is no longer adequate for state needs, and PG&E, a major distributor, relies increasingly on a pipeline from Texas and New Mexico fields.

In such a rapidly growing state, the needs of the construction industry are enormous, and the annual production of cement and of sand and gravel both total over $100 million in value, to rank in value next after petroleum and natural gas.

A very wide variety of non-metallic minerals and some metals have at one time or another been produced in considerable quantities in California, as for example during war years when imports were curtailed.

The only one consistently produced to the annual value of over $10 million is borates, which comes from dry desert lakes made familiar by the 20-Mule Borax advertising. Some of these lake beds are in the PG&E gas service area in northern San Bernardino County.

Manufacturing Matures

As late as the beginning of World War II, California still bore some marks of its earlier economic status as a producer of raw materials and a consumer of finished goods from the main man-

ufacturing belt in the Northeast. In 1940 there were only seven million people in the whole state, and it was a major exporter of crude oil.

Industries based directly on local raw materials, such as canneries, refineries and saw mills, were the dominant ones, and market-based industries were relatively small. The proportion of manufacturing employees to total employment was far below the national average.

But in World War II, unlike 1917-18, we had a two-front war on our hands, and California grew up economically in a hurry. It became an arsenal, a training ground and a staging area, and all its facilities were taxed to the limit for four years.

Many thought that once the war was over the swarms of newcomers would leave and there would be a shattering cut-back. But it didn't happen. Most of the newcomers liked California and wanted to stay.

The skills they brought with them or had acquired on the job, and the management skills developed during the war were soon put to supplying the pent-up demand for civilian goods, and a new boom was on. This time Eastern as well as local manufacturers anxious to tap the greatly expanded market were on hand, looking for suitable buildings to convert or for new plant sites.

The resulting upsurge brought 1959 manufacturing employment to more than three times the 1939 level for the state and more than doubled California's share of the national total, which increased from 3.6 to 7.9 per cent.

Although the San Francisco-Oakland-San Jose area did not manage to keep pace with the rest of the state — mainly because of enormous increases in Southern California — it did extremely well as compared with the country as a whole, advancing from 1.08 to 1.58 per cent of national employment in manufacturing.

Outside the Bay area, the Central Valley cities are heading into a new phase of their development; their traditional food-processing industries are being joined by new lines, and Sacramento, Fresno and Stockton each now have over 10,000 industrial employees.

Fresh, Frozen, Canned and Bottled

The tremendous output of California's farms and fisheries has been the basis for the nation's largest and most varied food processing industry. Although the aircraft industry has displaced it as the leading industry in the state as whole, it still leads by a wide margin in the Bay Area and in Northern and Central California generally.

Much of the food industry is practically unique to California — the wineries, the prune industry in San Jose, the raisin business in Fresno and the walnut operations in Stockton — and it provides a lot of California's atmosphere.

Perhaps more important, it has attracted a great many subsidiary industries such as packaging, chemical preservatives, and drugs. Also related to agriculture are the fertilizer and farm equipment industries. This whole complex, along with farming, is often referred to as agribusiness — a very important word in Fresno and other cities in the Central Valley.

Diversity in the Bay Area

The major developments of the last 20 years, apart from the tremendous but temporary wartime shipbuilding boom, have been an across-the-board expansion of durable goods.

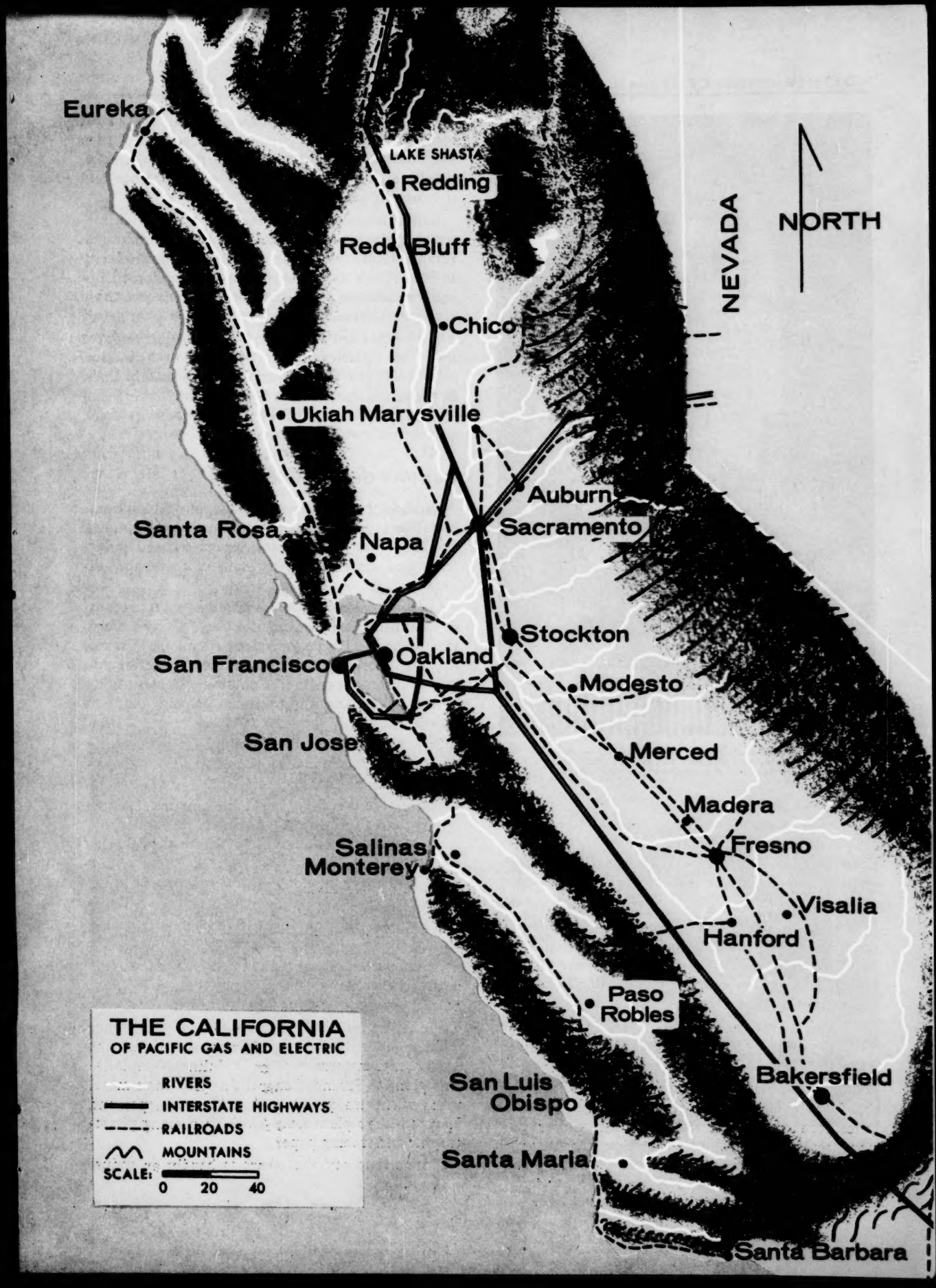
Not till the war was there any sizeable steel production on the West Coast, but now there are four plants in the Bay Area. U.S. Steel's Columbia-Geneva Division has the largest at Pittsburg, Bethlehem Pacific has a plant at South San Francisco, Pacific States Steel is at Niles, and Judson Steel is at Emeryville. With a total ingot capacity of nearly a million tons, they can supply a large share of current steel requirements.

A major heavy industry complex has grown up on the upper end of San Francisco Bay, where Standard of California, Tidewater, Shell and Union Oil have refineries with a total capacity of 415,000 barrels a day. In this same general area, Dow, DuPont, Hercules Powder, Shell Chemical, Monsanto and others have major chemical plants. American Smelting and Refining has a lead refinery here, and Kaiser has a gypsum plant and Crown Zellerbach and Fiberboard Paper Products have paper plants. In this same area is PG&E's huge Pittsburg thermal plant and not far away is the Navy's Mare Island base and shipyard.

Another quite different complex is emerging around the southern end of the bay. It includes some heavy industry such as Ford's assembly plant at Milpitas, but is mainly a light fabrication area with many electronics and missiles plants.

Some of the leading plants in this group are the IBM and General Electric plants in San Jose, the latter making atomic energy power equipment, Lockheed's missile plant in Sunnyvale, the Sylvania plant in Mountain View, Ampex in Redwood City, Lenkurt and Eitel-McCullough in San Carlos, and Hewlett-Packard and Varian Associates in Palo Alto.

The key to this area is Stanford University, which has had a distinguished graduate engineer-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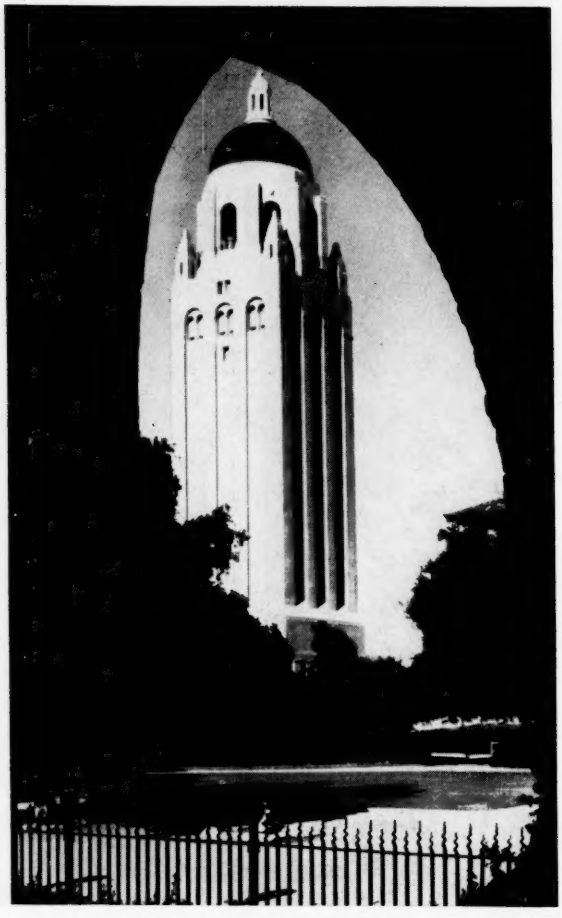


Stanford University's Herbert Hoover Memorial Library at Palo Alto is a symbol of the blending here of a strong liberal arts tradition and some of the most important technological developments of recent years.

ing program since before the war, and which offers arrangements whereby companies can send their technical experts for advanced work with some of the leading scientists in electronics and related fields.

There are many specialized laboratories and such research organizations as Stanford Research Institute. The result is that this is one of the easiest areas of the country from which to recruit people with specialized technological skills, the more so because of the many cultural attractions both in the immediate area and downtown in San Francisco.

The University of California, which had the first large cyclotron, and the AEC laboratories at Livermore are giving rise to a still newer but more scattered nucleonics complex. The atomic reactor in Vallecitos and Aerojet's plant for mass assembly of reactors in San Ramon are major components. In this same area are the Friden and Marchant calculator plants, Beckman Instruments, and a number of smaller electronics and instrument plants.

San Francisco itself is less important as a major manufacturing center than as the commercial, financial, and headquarters center; its similarity to New York is heightened by its far-famed opera, restaurants and night life, and there are those who call it "Manhattan with palms."

Both Southern Pacific and Western Pacific have their headquarters in downtown San Francisco, as do the Bank of America, many steamship lines, Spreckels Sugar, Italian Swiss Colony, the Bechtel Corporation, and Crown Zellerbach, to name only a few nationally known firms.

Outstate Growth Underway

Outside the Bay Area, the major developments have been in "agribusiness," as previously noted, but there are other major resource-based industries, and some important signs of increasing diversity.

Leading packaging and container plants recently established are Continental Can's Merced plant, Dow Chemical's polyethylene plant at Fresno, Kordite Corporation's plant near Sacramento for the same product, Container Corporation's Fresno plant, and International Paper's plant at Pinedale.

One of the more interesting food-processing plants is Nestle's chocolate plant now under construction at Salinas.

Major resource-based plants in the area include Bakersfield's six oil refineries, with a total capacity of 55,000 barrels a day, and other oil refineries at Oildale and Santa Maria. A new cement plant is under construction by Flintcote near Redding.

The Kaiser magnesium plant at Moss Landing on Monterey Bay produces light metals from sea water.

The most important plant to be established outside the Bay Area is the Aerojet missiles plant near Sacramento, which has been a major factor in the capital city's recent rapid growth.

Other recent diversified plants include the Kuhlman transformer plant at Salinas, Vendorlator's plant at Fresno, General Fireproofing's metal office furniture plant at San Luis Obispo, and Simpson-Lee's plant near Stockton making photographic and tracing paper.

Suffice it to say that there is hardly an indus-

try, other than one based on coal, which could not find a suitable home somewhere in Northern and Central California.

Learning and Living

Perhaps the greatest attraction to many firms has only been hinted at so far — California's tremendous educational structure that produces not only a goodly crop of Ph.D.'s but swarms of junior college and technical school graduates. Most California manufacturers are fully aware that their schools cost them a lot in taxes, but they are convinced that the remarkably high educational level of their labor supply fully justifies the expense.

The picture windows and outdoor living that have spread all over the country started in California, and they are perhaps more at home there than anywhere else. The mild, open winters, the long dry summers, and the varied terrain with its almost infinite possibilities for recreation are not easy to beat for pleasant living.

Smog has not reached serious proportions in the Bay Area, partly because the topography is favorable to wind movement, but it is being studied with care.

San Francisco's fogs are distressing to some nonnatives, but they are not smog, and they play wonderful visual tricks with the high buildings and the bridges, and are almost as important as cable cars in making the city different from all others.

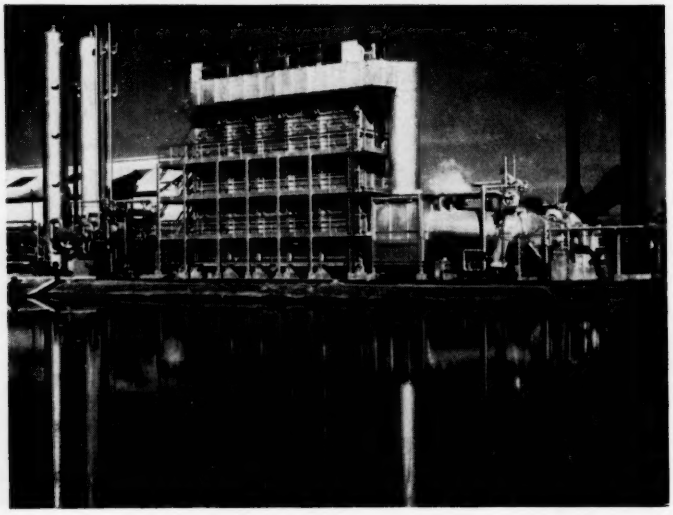
The National Parks in the high Sierra and the hundreds of miles of coast line attract visitors from all over the world, but many Californians have their own less spectacular favorites, often very close at hand, and quite uncrowded.

PG&E's Big Job

The utility picture in the area is not quite all a PG&E story as Sacramento and several other municipalities have their own distribution systems and Southern California Edison serves a number of communities in the Hanford-Visalia-Porterville section of the San Joaquin Valley.

PG&E itself is truly a mammoth organization, in a number of respects the largest private utility in the world. For a considerable period it — or its ancestor companies — relied mainly on hydroelectric sources, but it now burns vast quantities of natural gas. Its 14 steam plants have a total capacity of 3.3 million kilowatts, nearly ⅔ of its 5.2 million kilowatt generation capability.

The University of California's main campus at Berkeley is one of the world's great centers for nuclear research. The hillside site of the Ernest O. Lawrence Radiation Laboratory houses the Betatron and the 184-inch Cyclotron in two circular buildings — the former shown in the center and the latter in the upper left.



California Ammonia Corporation's plant at Manteca, between Stockton and Modesto, is well placed to figure importantly in the fertilizer industry serving the Central Valley. Its bold and vigorous lines give a strong impression of the strength and complexity of modern industry.

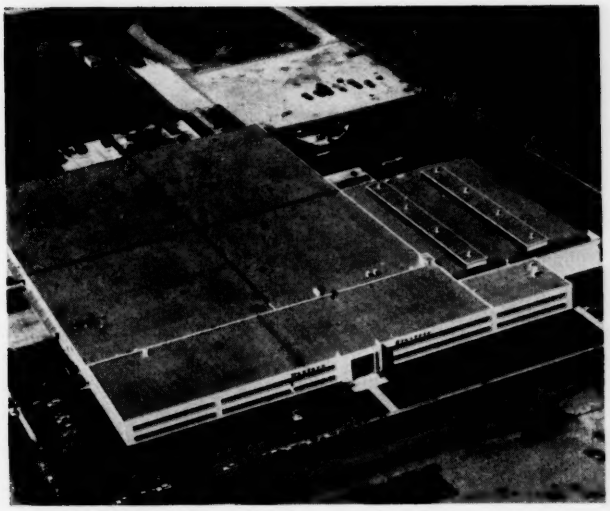
Industry is Varied

The Diamond National Corporation's match plant at Red Bluff is one of the largest wood-processing plants in the area. The vast quantities of timber available in the upper Sacramento Valley insure a permanent supply.

The far-flung Kaiser empire, which has its headquarters in Oakland, includes this Seawater Magnesia Plant of its Refractories and Chemicals Division. It is at Moss Landing on Monterey Bay.

One of the kingpins in the new Bay Area electronics complex is International Business Machines' new General Products Division at San Jose. The eye-catching "hydro-gyro" is a focal point in grounds that capitalize fully on California's vistas and vegetation.

and Balanced...



Western Electric's plant in San Leandro, an example of the rash of plants coming into the East Bay area, shows the dominating characteristics of simplicity and orderliness in new plant construction.

The southern end of San Francisco Bay, lacking a major stream and sunnier than the rest of the bay, has a considerable salt industry developed on tidal flats. This is the Leslie Salt Company at Newark.

California's newest port — and farthest inland — is Stockton, where a 256-acre industrial park is rapidly filling up in the outlined area. Dredging of another channel to Sacramento is far advanced.

Expansions of the system now underway include two new 325,000-kilowatt units at its Pittsburg plant, which will make it the largest thermal plant in the country except for some of the new ones on the Ohio River.

Of considerable interest are two new departures in power generation — the 12,500-kilowatt geothermal plant being developed in a natural geyser area in Sonoma County, and the projected 60,000-kilowatt nuclear power plant at Eureka, approval for which is pending.

PG&E gets some of its gas from the area and elsewhere in California, but the bulk of it comes in by pipe line from the Permian fields in Texas and New Mexico. Future supplies will come partly from Canadian fields by way of a 1,400-mile transmission line now being planned.

Because of the company's great size and flexibility, power and gas rates are held down to very attractive levels.

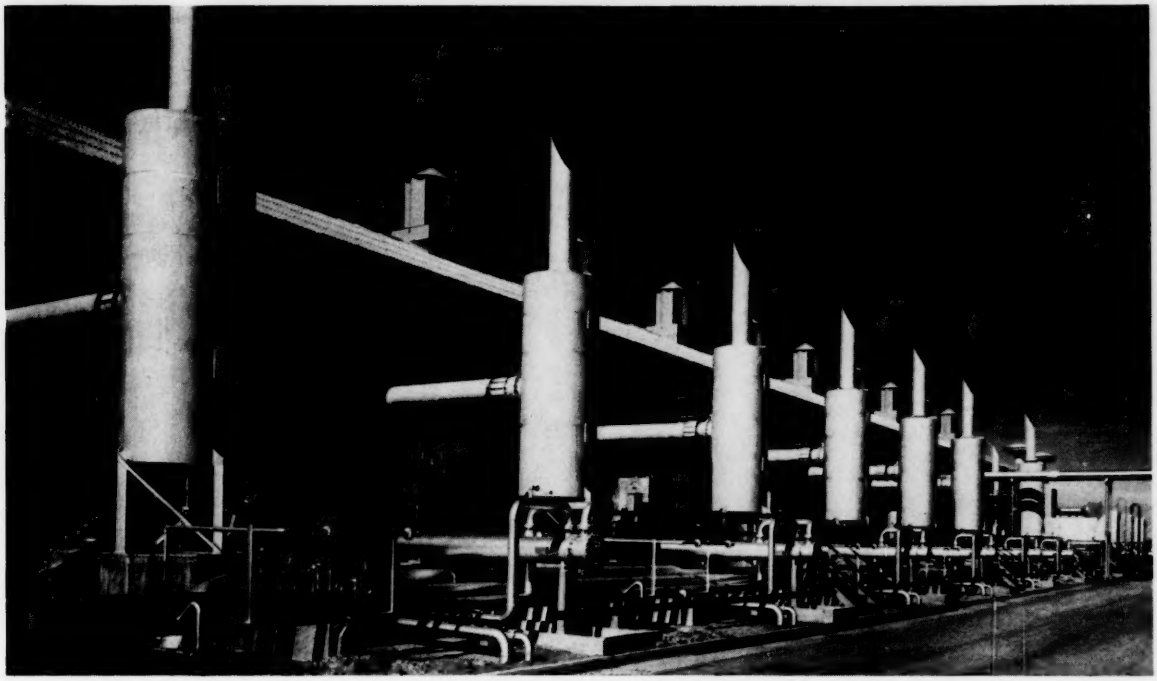
The company has active trade promotion programs, of which one of the most interesting has to do with irrigated agriculture. Irrigation pumping is a major power user, and a lot of gas is burned to dry alfalfa, so that the company has a direct interest in promoting the efficiency and prosperity of the farmers.

Besides its two home railroads, Southern Pacific and Western Pacific, the area is also served by the Santa Fe. Both the Southern Pacific and the Santa Fe have Central Valley routes to Los Angeles and both the Southern Pacific and Western Pacific have transcontinental lines crossing the Sierra.

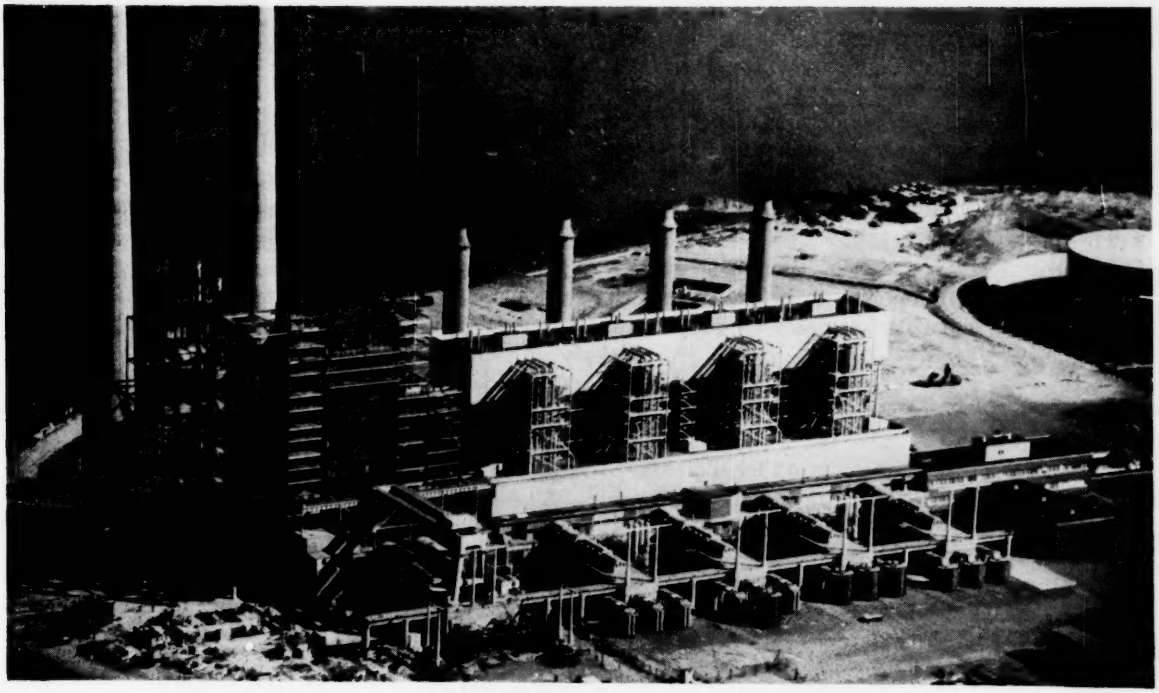
Only Southern Pacific has a complete route north to Oregon and south along the coast to Los Angeles. Western Pacific and Great Northern together have a nearly complete route to the Columbia River but it cuts back at one point in Oregon to use Southern Pacific tracks.

San Francisco is one of the world's great ports and ships of all nations tie up there and across the bay in Oakland and Richmond, as well as down the bay at Redwood City and far up the bay at Pittsburg. Farther, in fact, as Stockton is now an ocean port and Sacramento soon will be.

San Francisco's airport is one of the world's finest, and the Oakland International Airport is a major air cargo and freight center. Sacramento, Fresno and Bakersfield and a number of other communities have scheduled air service. Practically all communities of any size have secondary airports for private or business planes.



The farthest outpost of PG&E is the Topock compressor station on the Colorado River, to which El Paso Natural Gas delivers gas from the Permian Basin fields. The compressor station boosts pressure for the long haul across the Mohave Desert to Bakersfield, where it ties in with PG&E's main distribution system.



PG&E's main thermal plant at Pittsburg on upper San Francisco Bay is adding two huge 325,000-kilowatt units, which will practically double its existing capacity of 660,000 kilowatts. The first is now nearly completed.

Careful attention to all details of plant location work is a major factor in extending the long list of satisfied PG&E customers. Those involved here, in the usual order, are Clifford A. Mills of Fersolin Corporation in Santa Rosa, John S. Walsh of PG&E, William H. Harrison of the Sonoma County Industrial Development Board, and Thomas P. Ludcke, the local PG&E district manager.

The Development Experts

Information in great depth on this entire area can be obtained from PG&E itself. John S. Walsh, Manager of Area Development at the San Francisco headquarters, knows both the history and romance of the whole service area and the hard business facts about what it has to offer. He points out that PG&E will go to great lengths to prevent an industry from making an uneconomic location within its area.

California has an excellent State Chamber of Commerce, with headquarters in San Francisco, which has long had an active research department and which puts out a most useful "Economic Survey of California." The new State Economic Development Agency in Sacramento is now also prepared to supply data on the area.

Community chambers of commerce and such regional groupings as the Bay Area Council, which covers the nine counties fronting on the bay and has its headquarters in San Francisco, are strongly organized in California and are particularly well equipped to handle local inquiries.

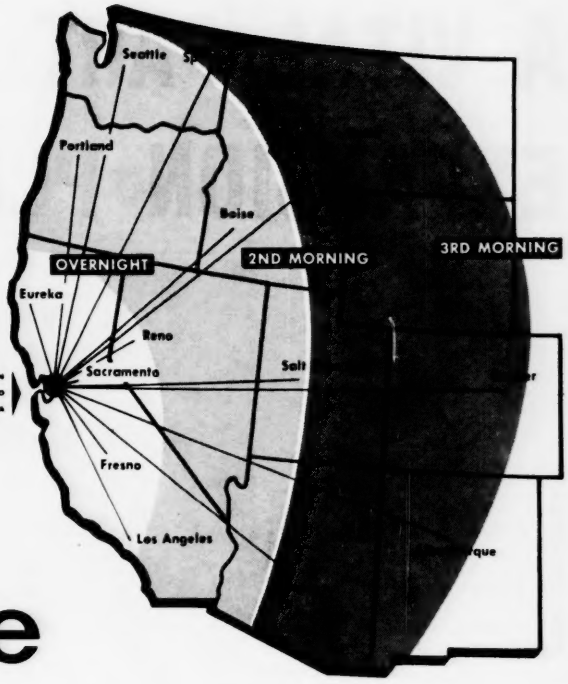
Prospects: Good

It is extremely hard to be level-headed about an area with as much charm, as well as such obvious potential, as Northern and Central California. This is the more true when unexpected but quite logical developments come along and transform some previously neglected part of the area.

A case in point is the transformation of the Lompoc area, which is off the main coast route between Santa Barbara and San Luis Obispo and in a remote corner of PG&E's territory. The Navy and Air Force were casting about for a spot for launching missiles with a polar trajectory, and discovered that, because of the trend in the coast, this was about the only spot in the country where a missile could be launched directly southward over an endless expanse of open ocean. Hence the Vandenberg and Point Mugu bases.

The Gold Rush is still on.

This special report on industrial location factors in Northern and Central California deals with the entire service area of the Pacific Gas and Electric Company, under whose auspices it was prepared. Others dealing with portions of the area are to follow. Reprints are available from John S. Walsh, Manager of Area Development, 245 Market Street, San Francisco 6, California.



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A VITAL PART OF YOUR EXPANSION PLANNING

Well organized and smoothly operating security programs contribute materially to production and efficiency in today's complex manufacturing facilities. A discussion of these programs, with specific examples, is presented here by an executive of the General Plant Protection Corporation . . .

By Clarence W. Bracy

Company managements give a great deal of thought to the proper design and construction of new facilities to avoid high operating and overhead costs after occupancy.

Proper planning, in relation to the operations to be performed within the facility after its completion, is a necessary and vital part of all new construction plans.

Architects, construction firms, and others engaged in the construction field, are doing an admirable job with respect to such planning, particularly when we consider the multitude of factors involved in the design of new installations.

To those of us in the plant protection field, however, it is often apparent that high plant protection operating costs may frequently be avoided by more consideration of the plant protection factors during the planning stages of new construction.

The term "plant protection," as applied to protecting a business or facility, has a different connotation to people in different industries. It also has a slightly different meaning among persons who are engaged in the plant protection and industrial security field. It is generally accepted, however, that the scope of plant protection in its broadest sense includes those measures necessary to protect life and property. Some companies have elaborate plant protection systems, perhaps due in part to the impact of the classified work being performed for a government agency, or for other special reasons.

Plant protection or industrial security organizations which have been developed over a period of years vary from company to company, and may consist of a single night watchman employed by a small plant to forces amounting to several hundreds of people at larger installations. Regardless of the size of the facility, the problems usually are the same and vary only by degree — namely, theft prevention, fire prevention, and the like.

Plant protection is not only the protection of lives and property, but also an aid to production. It is generally recognized that plant protection involves protection from fire, theft, sabotage, espionage (including business espionage), and protection of classified matter entrusted to a firm by the government.

It further involves the control of the movement of individuals and vehicles while on the premises, and other activities that are, perhaps, peculiar to the type of business being protected. We feel that the plant protection function, if properly applied, can be used as an aid to production, by insuring a continued and uninterrupted flow of this production. Good protection planning is a necessity, if it is to be operated effectively and economically.

There is a wealth of information available on the subject of fire protection, which can be used for reference when designing new facilities. The protection planning that is often overlooked is in the area of control of movement of individuals and vehicles, so as to minimize the possibility of theft, sabotage, espionage, and lost time of employees. Most plant protection authorities agree that the movement of individuals and vehicles must be controlled while on the premises, in order to minimize loss in one form or another.

For this reason, most companies maintain control over the ingress and egress of persons to and from their facilities, employ badge systems, maintain timekeeping provisions, and the like. In the larger plants, guards usually are employed to assist in maintaining this control. This is usually more effective than relying on personal observa-

tion of supervisors or other personnel.

Unfortunately, the future need and resultant cost of operating a guard force is frequently overlooked in the design of new facilities. These overhead costs could often be substantially reduced by more competent evaluation from an operational protection viewpoint. As an example, the construction of a plant with many entrances and exits which are accessible to the public may necessitate guards on duty at numerous points.

It is sometimes possible to reduce the number of these entrances and exits with more intelligent planning, and still meet the overall operational requirements. On the other hand, there is a classic example of an attempt by one well known manufacturer to reduce entrances, and thus reduce costs, in a new plant to be built.

The entire facility, consisting of a million or more square feet of manufacturing floor space, plus several acres of surrounding area and related buildings, was designed to have only one gate entrance. The resultant confusion of visitors, employees, service vehicles, truck shipments and garbage wagons, entering and leaving the premises, was almost chaotic, rendering an effectual control of movement a virtual impossibility. The reason the company involved attempted this plan was the direct result of past experiences of the company president, who had been confronted with extremely high guard and protection costs at a branch plant located in another area. There were no less than twelve entrances at this facility, and guards were maintained at several of these entrances almost continuously.

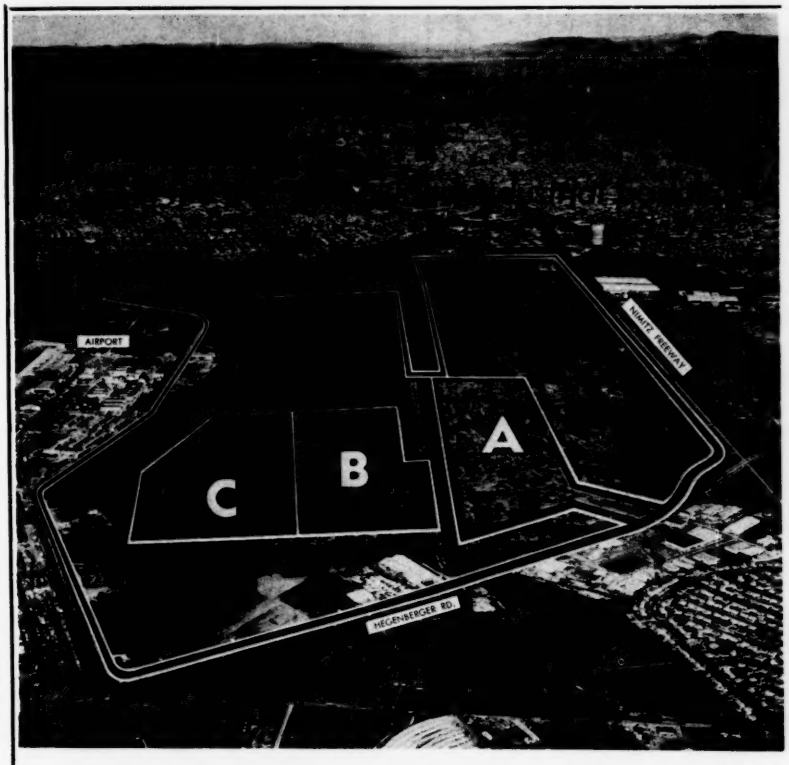
The net result was that he probably stayed awake nights, figuring how he could reduce protection costs in the design of his new plant. Unfortunately, the one-entrance idea misfired. It is important to remember that all efforts to reduce plant protection costs must be carefully weighed and evaluated, so as not to impair efficiency of over-all plant operations.

Proper control of the movement of employees, entering and leaving the premises of the installation is necessary to prevent lost time, minimize the possibility of theft, and to discourage free and unlimited entry of solicitors and trespassers. The controls employed must, of course, also include vehicular movement in addition to pedestrian traffic. From a public relations standpoint, the manner by which control is effected reflects the corporate image of the plant.

SITE SELECTION

In selecting the site of a new facility, the plans of the community should be ascertained. In particular, it is advisable to determine the traffic and road planning. This should be taken into consideration in an effort to reduce any unsafe conditions that your future employees may encounter when entering and leaving your premises.

It is also advantageous to know what is to be done with adjacent property by your neighbors, that might affect the safety of your operations. This will, of course, have a bearing on your choice of sites. The accessibility of the installation to



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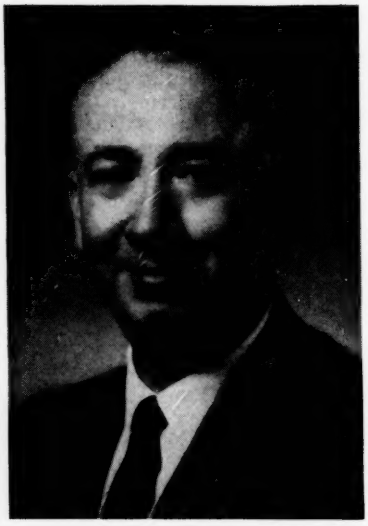
PLANT PROTECTION SPECIALIST

Clarence W. Bracy is prominently identified with the industrial security and plant protection field. He is a charter member of the American Society for Industrial Security, and served as chairman of the Physical Protection Committee.

For ten years he was director of protection and security for a large aircraft company. In this capacity he was responsible for the over-all security of its multi-plant operations, including direction of guard forces, fire departments, investigative sections, security administration.

He is presently executive vice-president of the General Plant Protection Corporation, Los Angeles, California, a firm that supplies guards and other protection services for industry.



the public should be analyzed, to determine what relationship this accessibility may have in influencing the guard or other protection requirements.

ENTRANCES AND EXITS

Persons entering and leaving the work areas of the premises should be required to **walk** past a guard, or other person designated for this purpose, for effective control. These control points should be confined to a minimum consistent with good operations, to avoid high guard manpower costs. A guard is limited in his ability to control individuals if they are riding in an automobile.

The susceptibility to theft is also greater if persons do not walk past a control point when leaving the premises. The only exception that should be made to the general rule of walking to and from work areas should be in the case of persons who must make deliveries or pick-ups of merchandise. Adequate control should be maintained in the shipping and receiving areas to discourage thefts and loss of employee time.

FENCE AND GATE

One of the most common errors committed, which is contrary to good plant protection practices, is to place an employees' parking area inside the perimeter fence. If employees, and others, park automobiles immediately adjacent to the work area, the possibility of dishonesty is increased, due to the access the individual has to his automobile during working hours.

It is recommended that all employees' parking areas be fenced separately from work areas, and control points established to observe and control employees and others when leaving work areas. Many company managements object to fences from an aesthetic viewpoint, but this generally can be overcome through the use of decorative fences. Although it is true that fences are not the total answer in theft prevention, they do go a long way in prohibiting unauthorized removal of property. Most prospective thieves will not risk climbing over fences, particularly if guards are utilized to patrol the area.

KEY AND LOCK

Unfortunately, not too much attention is given to the proper planning of a key and lock system before moving in and commencing operations. This system should be designed to fit the organization which will inhabit the structure. Oftentimes the new owner is presented a ring full of keys upon completion of construction. It then takes a period of several months — perhaps years — before the resultant confusion is eliminated, keys given to the right persons, controls established and proper provisions made for admittance in emergencies.

Key and lock systems should be patterned after the organization chart of the company, and should incorporate an intelligent system of master-keying. The most desirable system is one in which an individual is required to carry only one key. This one key should admit him to all of the areas to which he is entitled, and no more. There are several lock manufacturers who can advise and help plan such a system.

AUTOMATIC DEVICES

The use of automatic protection devices is one of the best known avenues open to management for escaping high protection overhead costs. The cost of utilizing alarms, closed circuit television, and other devices can be carefully weighed against manpower savings — in guards, for example.

Companies that do not have large amounts of floor space may be able to handle all of their protection requirements by mechanical means, while larger installations usually require guards to supplement alarm systems. When the cost of one guard on a 24-hour 7-day week basis is estimated at something between $20,000 and $25,000 per year, the savings to be effected through the use of automatic protection devices can be phenomenal. Proper use of guards and/or automatic protection devices will not only safeguard your facility from loss, but may also reflect a saving in insurance premiums.

Advance planning for the use of automatic or mechanical type of protection devices will enable the builder to incorporate many of these devices in the walls and ceilings during construction. Wiring and electrical conduit then become invisible, and thus precludes the necessity of tearing walls apart after occupancy.

Most of the larger companies designate someone to administer and direct the company security and protection program. The size of the staff usually is directly related to the size of the facility, the number of employees at that facility, and the type of operation being performed.

All companies, large and small, ought to have someone within the organization responsible for the plant protection functions, rather than assign the various components of the over-all plant protection picture to various individuals within the organization. Much more intelligent planning of protection and se-

curity can be done in this manner than if the maintenance engineer is responsible for some, the controller for others, the general manager for a few, and so on. In companies requiring a lesser degree of plant protection, a full-time plant protection or security officer may be an unnecessary cost. It would still be better, perhaps, to designate someone to handle all of the plant protection functions, in addition to his regular job, rather than have piecemeal assignments. Companies lacking persons qualified in the plant protection or industrial security field face the risk of allowing many facets of plant protection to go unheeded.

The majority of top management have had little or no training in plant protection other than that acquired through experience, and a great many company officials view plant protection as a necessary evil and an added expense in overhead costs. The tendency then is to devote no more attention to this area than is absolutely required.

Undoubtedly, the best recommendation that can be made for the smaller installation is that the best n competent advice be secured for plant protection planning and programming. If you do not have a full-time plant protection or security officer at the management level, to research and analyze your plant protection requirements, outside assistance should be considered, either from some nearby larger plant with full-time competent personnel or from a professional organization.

In analyzing the plant protection requirements, for the purpose of determining the organization necessary to meet this requirement, the following should be among those factors considered:

FIRE PROTECTION

The danger and risk involved must be carefully weighed and analyzed, to determine the proper fire protection program. The effect of inadequate fire prevention programs on the insurance premiums should be studied.

The amount of manpower necessary to maintain an adequate fire prevention and protection program has a rather wide range. A small installation, with little hazard and few employees, may be able to develop an adequate program with the help of insurance carriers, com-

Tennessee Winning New Industry

332 New Plants and Expansions Last Year

Tennessee's industrial advantages are attracting hundreds of manufacturers who are considering branch plants or warehouses in the South.

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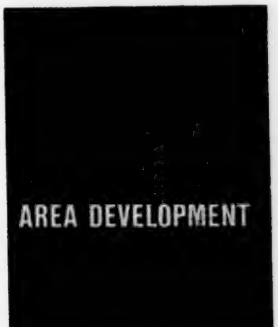

This comprehensive, authoritative textbook on industrial development, community improvement and area promotion will be published this month. Written by members of the staff of INDUSTRIAL DEVELOPMENT magazine, and reviewed by the top men in the development field, this handbook is a definite necessity for those interested in or working in community, area, or industrial development. The bibliography alone provides more than 2,000 reference sources. The extensiveness of the editorial content is indicated by the chapter headings:

(1) Understanding the Growth Process; (2) Organizing for Area Development; (3) Area and Community Analysis; (4) Planning and Zoning; (5) Financing Industral Development; (6) Industrial Buildings; (7) Selling, Advertising and Promoting; (8) Future Trends in Area Development and (9) Sources of Information.

Orders are now being taken for Volumes I and II, at a price of only $25 for both. Your initial order includes a one-year's subscription to current, authentic reports which will be published periodically and sent to you as supplements to the "Area Development Guide." Subsequent yearly service will be provided at the low cost of $25.

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munity fire departments and other service groups engaged in the fire protection field.

Other companies may require varying numbers of personnel assigned to combat fire losses and develop a fire prevention program. The important thing to remember is that to neglect competent advice in this area is to court disaster.

THEFT PROTECTION

The measures employed to minimize thefts will, of course, vary with each company, depending upon the product being developed, the number of employees and others who have access to the premises, and a host of other conditions.

Unfortunately, we cannot use what we believe the actual loss is, or will be, in determining the required number of plant protection personnel. The criteria which we must use in reaching such a determination is what the total loss could be and the consequences of this loss. In other words, it is not a matter of saying we estimate our possible loss at $10,000 per year and to provide adequate controls will cost $25,000 a year so, therefore, we shall save $15,000 a year by not maintaining an adequate control.

To properly analyze the cost of the control measures versus the amount of loss we must calculate the amount of **potential** risk involved. The effect of adding controls to decrease this potential risk is then closely analyzed to seek the proper level of controls versus risks, in terms of dollar amounts.

It is also important to investigate suspected thefts, and other conditions, not necessarily to effect the return of the items stolen but to discourage similar acts in the future.

PERSONNEL SCREENING

More and more companies recognize the advisability of investigating prospective employees before bringing them into their plants. Large companies have persons assigned to perform this function on a full-time basis. Smaller companies may take advantage of services supplied by outside firms to do this for them. The cost of an inadequate program in this field will be found in increased labor turn-over, compensation claims, lost time, and other factors.

The growth of plant protection as a field of endeavor within the last 20 or 30 years is indicative of the attention being focused on this phase of plant operations. A few years ago a society was formed, comprising persons in the plant protection and industrial security field. This group, The American Society for Industrial Security, is endeavoring to establish better methods of plant protection and security. Through the efforts of organizations of this nature, alert company management, and individuals concerned with the preservation of lives and property, we shall be in a position to make better plans for our plant protection.

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Community Evaluation In Site Selection

"Selecting a plant site is like choosing a wife — while it is possible to change later, the change may be both expensive and unpleasant." So says a plant location expert who offers here some pointers on how to avoid making a mistake in your choice of a site . . .

By H. Campbell Stuckeman

Selecting the best sites for new plants is one of the most difficult problems faced by many American companies today. Many different factors — many pitfalls — are involved. Selecting a plant site is like choosing a wife — while it is possible to change later, the change may be both expensive and unpleasant.

It is certainly better to make a good choice the first time — and this takes sound planning. The right location is the place where it will be possible to manufacture the desired product and place it in the hands of the customer at less cost than it can be supplied by an existing or potential competitor.

There are many reasons why new plants are built. But — whatever the reason — the same factors must be considered. Among these are:

1. A satisfactory labor supply must be available.
2. The community must fit the company's needs.
3. Technical requirements, such as waste disposal facilities or large amounts of fuel or water must be met.
4. Transportation facilities must be adequate, and
5. Taxes, utilities, operating costs and housing must all be weighed.

Most companies prepare a comprehensive list of factors which must be considered in selecting any plant site. First they must decide what they need before they can evaluate any site. The failure to define needs properly is the single biggest cause of trouble in plant site selection.

Once that decision is made, how do we at Rockwell go about selecting the right plant site? To begin with — because we are only a medium-size company — we do not maintain a permanent staff for this purpose.

In our company usually a one- or two-man team studies the problem and makes the field trips which are so essential. However, plant location is a company-wide operation. Every department assists with suggestions and recommendations. Traffic, industrial engineering, industrial relations, insurance, tax, treasury and legal departments (in addition to manufacturing personnel) are all consulted. The field sales force is called upon for help. This group is far more familiar with the territory than anyone else. We also use professional site-finding companies and obtain much important help from state development commissions, public utilities, railroads and Chambers of Commerce.

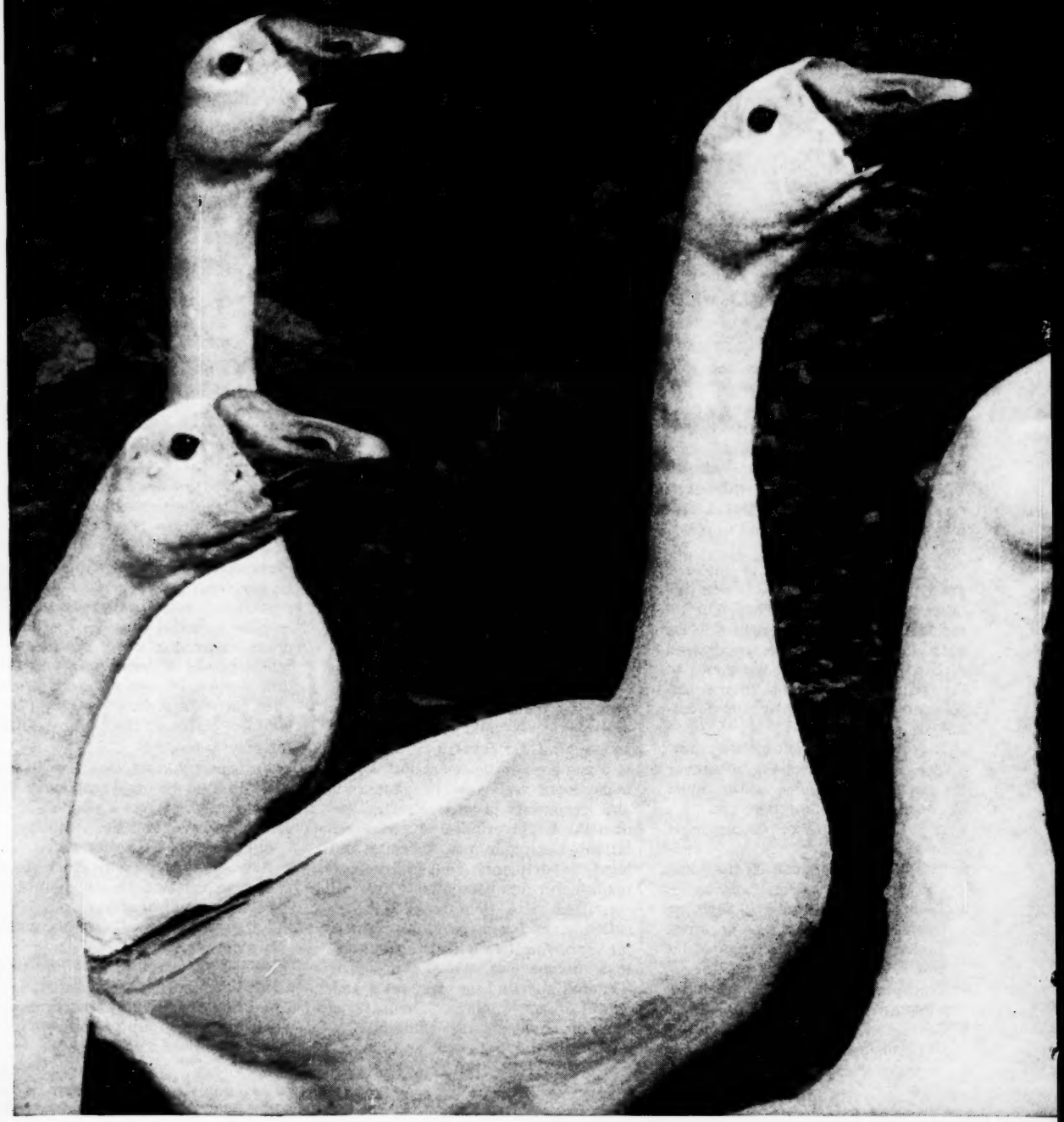
The specifications for our new plants are set up by the manufacturing or operating division of the company. These are usually prepared in great detail — including: Products to be manufactured — Markets to be served — Location of major vendors — Size of plot — Size and type of community — Utility requirements — Required number of employees (male-female) — Transportation requirements for materials — Raw material needs — Waste disposal, water, fuel requirements. The investigation of these and other factors is more or less standard procedure for most companies. Our problems are different from many others for several reasons:

1. Future operating facilities should be limited to employment in the 300 to 500 range.
2. The markets for the majority of our products are nationwide.
3. Raw materials, and their location in relation to our plants, is relatively unimportant.
4. Large volumes of process water are not required.

Once the specifications for the new plant have been set up, a general area is chosen. It may encompass a whole state, a group of states or on-

(Continued on page 66)

Don't take our word for it! (Just take a gander



at this)...

PROOF!

A recent U. S. Department of Commerce report shows the following expansions in major fields of business activity from World War II (1946, '47 or '48) to 1959:

	PER CENT INCREASE FOR THE SOUTHEAST	PER CENT INCREASE FOR THE U. S.
Dollar-value of construction contracts	271%	75%
Manufacturing employment	20%	−1%
New plant and equipment expenditures	145%	102%
Dollar-value added by manufacture	104%	99%
Electric energy produced	250%	169%
Number of manufacturing establishments	40%	26%
Dollar-value of manufacturing payrolls	131%	117%
Contract construction employment	58%	34%
Dollar-value of bank deposits	74%	61%
Dollar-value of life insurance in force	223%	148%
Motor vehicle registrations	121%	83%
Dollar-value of retail sales	70%	48%
Retail trade employment	27%	14%
Dollar-value of world trade (imports and exports) through Customs districts	138%	111%
Dollar-value of retail trade payrolls	82%	56%
Gross personal income	102%	88%
Per capita personal income	66%	56%
Cash farm income	44%	32%
Number of industrial and commercial firms	57%	25%

IF YOU are looking for a new plant site, we think you'll find it well worth your while to read and *study* the figures shown in the panel here. We didn't just dream them up. These are official U. S. Government figures, showing that the South's economic development since World War II has outpaced the national rate of growth in practically every category you can name.

No wonder hundreds of industrialists every year, after a careful consideration of all the factors involved, decide that the modern South is the place to settle down today for greater, more profitable growth in the years ahead. Many just pull up stakes and move South. Others add a branch or regional operation here to their present facilities outside the South.

All find it's just good business to come South now and *grow* with the young, fast-growing territory served by the Southern Railway System. We think that you will, too. Look at the U. S. Government figures again, then . . . *"Look Ahead—Look South!"*

Harry A. DeButts
PRESIDENT

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The Southern Serves the South

ALL AMERICA IS GROWING—BUT THE FAST-GROWING YOUNGSTER OF THE "FAMILY" IS THE MODERN SOUTH!

(Continued from page 63)

ly a few square miles. We then collect economic, engineering and cost data on the various states under consideration — and the general area is then reviewed by an outside professional factory locating service. These people are thoroughly familiar with the advantages and disadvantages of a particular area and are able to summarize quickly the most favorable locations.

Most states and most municipalities have in the past few years established rather extensive industrial development departments or committees. Our consultants review pertinent data from these organizations and finally recommend several locations for us to inspect personally. We then send several teams at different times to anonymously inspect each community.

We normally consider the smaller towns as being the right size for us because we prefer small plant operations. Such a community, generally speaking, would be able to supply an adequate labor force without placing an undue burden of employment responsibility on us. In places that are **too** small, we believe we have too great a responsibility for the economic welfare of the community. We want to be neighbors rather than squires in the places we live.

Enticing new industry to settle in communities is so highly organized these days that it is difficult to avoid the welcoming committees that greet industrial newcomers. In fact, the extravagances of some of these committees have caused us to look elsewhere in more than one instance. Although we appreciate the efforts on the part of some communities to do a job of super-salesmanship, we shy away fast when they start leaning on "giveaways" and unrealistic special inducements. We are particularly wary when communities start making special offers even before they learn our identity.

We go into new communities when (1) we know new industries are carefully screened before they are invited; (2) we can pay our fair share — no more or no less — of the tax collection necessary to maintain adequate community services and schools; and (3) we know we are wanted.

Of the three qualifications, the one that is usually hardest for us to determine is knowing whether we are really wanted. For that reason we make a special point of meeting with local governmental and civic officials in advance of selecting a location. From them we have been able to gain a good deal of insight into community attitudes.

Many cities are eliminated quickly because they do not possess the most vital fundamentals — namely:

1. Main line railroad
2. Satisfactory highway system
3. Adequate water supply
4. Natural gas
5. Suitable site

If a city meets these basic standards, we then study its economics and compile all relevant data in considerable detail.

At this point, I think the most helpful thing I can do is list some of the more important of these considerations by category — together with random examples of how they apply:

The first category is **markets.**

Our newer plants are all located in major market areas. For example, we have a valve plant in Sulphur Springs because of the many customers in this general area.

An even more important category is **labor.**

Is there sufficient labor? We normally receive a minimum of 3 to 4 applications for every job. This, we feel, has one major benefit. It enables us to be extremely **choosy** in picking our initial work force. As a result, our new plants have been exceptionally good from the standpoint of absenteeism, labor turnover, productivity and other labor relations yardsticks.

We also consider the labor history of the community. Has it been satisfactory? Does the state have a "Right to Work" law? Has there been general labor tranquility in the area for a number of years? What is the influence of local industry on labor? We conduct a scientific wage survey among the local businessmen and employers in the surrounding area to determine the actual wage rates and existing practices.

Employers are usually suspicious of what a newcomer will do to wage rates. Even local merchants who stand to gain much from a new plant often wonder if they may not be better off with a status quo situation. They are fearful of the spectre of their best people leaving their employ to accept employment at highly inflated wage rates in a spanking new industrial plant.

Here again, a direct approach brings the most satisfactory results.

By having our management people talk to Rotary, Kiwanis, Lions, or Chamber of Commerce meetings, we deliver the message that we did not select this particular location for the purpose of disrupting the local economy.

And now — **what about the maturity of the local citizenry?**

Do the local civic and religious leaders have an enlightened and progressive attitude toward business and industry? Do the people vote? Do they take an interest in government at the city, county and state level? Is the standard of living at or above the national evarage, and are community educational programs directed toward young people?

Since we attempt to man our plants almost entirely with local people — except for key supervisory personnel who generally account for about 5% to 10% of the total work force — we want to be sure that prospective workers can be expected to grow into persons who can assume added responsibilities.

Then there is **utilities** — another important category.

Can the local power system fill our needs as far as voltage, phase, cycles and capacities are concerned? Can the distribution lines handle a plant expansion program? Are the rates satisfactory? One of our recent plants was located in a community of approximately 10,000. At this plant we produce aluminum die castings. It was absolutely necessary that we have uninterrupted electric power in order to maintain the molten aluminum at the proper temperature. If power failed for one reason or another, all of the furnaces would immediately freeze and consequent damage the equipment. This would mean expensive repairs and lost production. So we located our plant at the junction of three main transmission lines, thus guaranteeing adequate power at all times.

Incidentally, our Edward Valve' products, as well as the controls manufactured by the Republic Flow Meter Company, one of our subsidiaries, are widely used in power plants throughout this country and the world.

Transportation facilities are important.

We want a major railroad near the plant site so as to minimize the expense of constructing a spur track.

In some communities we have investigated, not one site shown to us could be served by rail because of the prohibitive cost of constructing a spur. Likewise we do not want to be on a spur line of a railroad which provides spasmodic service.

Truck transportation is extremely important, too. We try to select a community which is on a main highway and is served by several truck lines. There is an additional reason for this. We are proud of all our plants and want them located prominently on main highways where they can be seen.

Airline transportation in the immediate vicinity is most desirable. If it is not available, we at least like to be close to some kind of airport which can be used by our company-owned planes. Our management personnel do considerable traveling between plants — so local airports save important time.

Water transportation, although an important requirement for some industries, is not a necessity for the products we manufacture.

There are many other less obvious community characteristics which are important to us. For example, **housing.**

Are there enough rentals for new employees? Are there plenty of houses available in the proper price bracket for new employees? Are there attractive suburbs?

Then there is **education.**

Are there sufficient schools, adequately staffed? Is the school build-program in keeping with the forecast of community growth? Are there vocational, trade and apprentice training opportunities? Most of the towns in which our recent plants have been established are in areas where there has been little or no industrial activity.

We recognize the schools as one of the preparing grounds for future employees. We work with school administrators in setting up additional industrial arts programs, mechanical drawing courses, or other activities we feel are to our benefit. A pool of students with this exposure to shops and machines can be an asset when we are recruiting.

PLANT LOCATION EXPERT

A vice president of Rockwell Manufacturing Company, Pittsburgh, since 1947, H. Campbell Stuckeman has for the past eight years been responsible for plant location and plant layout engineering for the company, and he administers Rockwell's entire program of physical expansion and plant modernization.

Before joining Rockwell, Mr. Stuckeman was resident partner of Delta Manufacturing Company, Milwaukee. The latter was purchased by Rockwell in 1945, and Mr. Stuckeman later served as general manager of the Delta Division, transferring to the headquarters office in 1950. He is a graduate architectural engineer and registered architect in Pennsylvania and has served in various capacities with several architectural and engineering firms. He is also active in community affairs.

How about **health and welfare?**

Are there satisfactory medical and health services such as hospitals, doctors, dentists and other requirements usually found in a dynamic community?

And **culture and recreation?**

Are there a variety of local outdoor recreational facilities such as parks and playgrounds? Are there enough churches, civic attractions, libraries and other community building?

And **planning and zoning?**

Does the community have an active and forward-looking city planning commission? Can new industry expect protection against undesirable neighbors? Can industry locate in any area or is this controlled by proper zoning ordinances? In one town in which we have located a plant, the city many years ago annexed a strip on either side of all main highways leading into the community. It controlled the type of structures erected along these highways. This has prevented jerry-bilt gas stations, junk yards, and hot dog stands from cluttering these highways with unsightly structures.

Does the quality of construction and maintenance of the local road and street system indicate an efficient highway department? Can all of the available industrial sites be served by the city sewage system? In our opinion, where a plant employs 300 to 500 people, septic tanks are unsatisfactory. All our plants are served by a city sewage system. It has been necessary in a number of cases to extend the sewages system, but we believe this is absolutely necessary and must be done to attract industry.

How about the physical appearance of your town? Is it pleasant? Are there good hotels, motels and restaurants? Are shopping and commercial districts well laid out for parking facilities and easy flow of traffic?

Don't forget your **police and fire departments.**

Do they have high standards of personnel equipment, training and morale? Is police patrol service provided for industrial properties? Can satisfactory policing arrangements be made for plants outside the city limits? Is the community fire insurance classification satisfactory? Is water pressure sufficient and are there adequate fire hydrants and proper-sized mains?

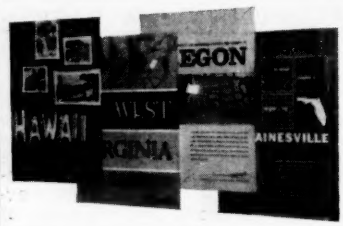
How about **community finances?**

Is the community tax picture well balanced between residential, industrial and commercial sources? Is the community indebtedness within reason? What is the tax and financial situation of the community and the school board and the county — if there is an overlapping of revenue sources?

How about **community business?**

Are local officials sympathetic and enthusiastic toward existing as well as new industry? Does everyone work together to promote improved business conditions? Is the past and present record of local

(Continued on page 69)



EDITORIAL SURVEYS

And Plant Location Reports

Since before the turn of the century MANUFACTURERS RECORD has issued special studies of specific cities and areas to assist the site-seeking industrial firm. Today, through the combined coverage of INDUSTRIAL DEVELOPMENT and MANUFACTURERS RECORD this tradition of leadership in this field is being extended and carried forward.

Before you go site-seeking, take advantage of background studies which have already been prepared for the areas listed below. Generally, reprints are available gratis.

COMPANY SURVEYS	
Western Pacific Railroad	Feb., 1960
AREA SURVEYS	
Alma, Michigan	Apr., 1960
Thomasville, Ga.	Apr., 1960
St. Augustine, Fla.	Mar., 1960
Colorado	Mar., 1960
Gainesville, Fla.	Feb., 1960
West Virginia	Jan., 1960
Calgary	Jan., 1960
Hawaii	Dec., 1959
Kansas	Dec., 1959
St. Lawrence Valley	Nov., 1959
Oregon	Nov., 1959
Virginia	Oct., 1959
Staten Island	Oct., 1959
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Fresno County, Calif.	Sept., 1959
Niagara Frontier	Aug., 1959
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Columbus, Ohio	June., 1959
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Western Mississippi	May, 1958
Savannah, Ga. Area	May, 1958
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INDUSTRIAL DEVELOPMENT
MANUFACTURERS RECORD

RECENT RELEASES

By SUZANNE JOHNSON

GENERAL REPORTS

Area Development Guide edited by H. M. Conway, Jr., and Frank H. Stedman. The guide contains detailed analysis of each phase of operations of the typical development group and will contain answers to many of the questions of community development groups.

Included items are contributed by many of the outstanding experts in all phases of development and location work. The views of manufacturers themselves are given full coverage, in order to make clear what is expected of community groups by potential prospects.

Chapter headings include Growth Process, Organizing, Area Analysis, Planning & Zoning, Financing, Buildings, Selling & Advertising, and Future Trends. Conway Publications, Inc., North Atlanta 19, Georgia. 1960, 421 pages, $25.

Mutual Problems of Developers, Planners and Governments by Angus McClaskey. Mr. McClaskey is president of Don Mills Developments Limited, Don Mills, Ontario and from his background in development work presents here his views on the direction to be taken in planning for future land development projects. Urban Land, December, 1959. Urban Land Institute, 1200 — 18th Street, N.W., Washington, D. C. 8 pages. $1.00.

Journal, Fourth Quarter, 1959. Stanford Research Institute. This journal presents the views of several thoughtful analysts of the Communist strategies and of our responses. Stanford Research Institute, Menlo Park, California. 198 pages. $1.00.

American Trucking Trends, 1959. The industry's performance in accommodating the demand for flexible, versatile and economical freight transportation is illustrated in this 12th edition. American Trucking Associations, Inc., 1424 16th Street, N.W., Washington, D. C. 30 pages.

Loans to Local Development Companies. This pamphlet explains the program of Small Business Administration loans to local development companies. Office of Information, Small Business Administration, Washington 25, D. C. 10 pages.

AREA REPORTS

Industrial Land Development by Dorothy Muncy. A very comprehensive report on industrial land development in the Baltimore region 1957-1980. This is the first time such a report has been undertaken on such a large scale. An unprecedented decision was made by the Baltimore Regional Planning Council when it selected industry as the principal private use of land to receive special analysis during the planning for land use in the Baltimore Region of 1980. The four major elements covered are: (1) an analysis of industrial employment and a projection for 1980; (2) an inventory of industrial land use and industrial zoning; (3) an estimate of industrial land requirements for 1980, and (4) a map recommending for local consideration major areas with potential for industrial development. Maryland State Planning Commission, 100 Equitable Building, Baltimore, Maryland. 1959, 85 pages.

Inviting Industry's Investigation — Richmond Hill. Booklet containing basic information for site-seeking businessmen. Richmond Hill Industrial Commission, Suite 4, 6A Levendale Road, Richmond Hill, Ontario, Canada. 14 pages.

COMMUNITY EVALUATION

(Continued from page 67)

government honest and efficent? Are industrial leaders and the business leaders in general active in promoting a better business climate for the community and the state?

How about the **state business climate?**

Does the state have a good reputation for fair treatment of industry? Are the state legislative, executive and judiciary branches performing as well as other state governments? What is the existing debt of the state? Does the state have income tax on individuals? Are the state taxes fair and equitable and reasonable in comparison with other states?

How is the **climate?**

What are the geographical extremes? Are there unusual wet or dry conditions? This is of some concern particularly when you are constructing or considering air conditioned plants.

This is a broad review of the many factors which every industry investigates in selecting a plant site There are many more specific questions which must be answered under these main headings, but I am sure they are most obvious to you. In our company this detailed data is usually compiled on five communities and each community is carefully inspected personally by several different groups of company personnel.

We also think it is advantageous to have the prospective plant manager participate in the final selection of a plant city — or at the least to give his concurrence. This gives tangible meaning to the question our management asks itself: "Would you like to live in this community with your family?" And we think it has some influence on others in the organization who are asked to relocate their families.

So let me just add that after all these factors are weighed — we still usually come up with a list of several communities which meet our practical standards. So how do we make the final big decision? Well — to us, at least, the most important qualification of all is one I have only touched on lightly. We call it **community attitude.** Without this attitude of complete cooperation with a new industry, it would be very difficult for us or any other manufacturer to operate profitably. And this — above all — we have to do.

INDUSTRIAL DEVELOPMENT MANUFACTURERS RECORD

CLASSIFIED ADVERTISEMENTS

Industrial Districts

The following planned industrial districts have sites available for immediate construction. Advantages offered by such districts are described in detail in the November-December 1954 issue, pages 6, 7, and 8.

Services offered are indicated by the following code: (A) Architect & Engineer; (C) Construction; (E) Electric Power; (G) Natural Gas; (F) Financing; (P) Paved Streets; (R) Rail Siding; (S) Sewers; (T) Telephone; (W) Water.

Iowa

IOWA "MANUFACTURING MEADOWS" — Clinton, Iowa (population 35,000). 138 miles west of Chicago on Mississippi River and Lincoln Highway (U. S. 30). 190 acres within city. Master plan by Skidmore, Owings & Merrill. Served by Chicago and North Western Railroad. Developed by Clinton Development Company, a civic-non-profit corporation. CHapel 2-4536. R. J. Stapleton, Managing Director. Services available: (a) (optional), (c), (e), (g), (f) (optional). (p), (r), (t), (w), restrictions.

Georgia

METROPOLITAN ATLANTA — Five Industrial Districts offering planned sites of varying location, size, price. Services available: (A) optional. (C), (E), (G), (F) optional, (P), (R), (S), (T), (W). In your Southeastern plant or warehouse survey contact: F. Wm. Broome. Industrial Manager, DeKalb County C of C. 250 E. Ponce de Leon Ave., Decatur, Ga. (Atlanta phone: DRake 8-3691.)

Available Buildings

Childress, Texas — 24,000 sq. ft. — completely sprinkled — 1 story, all brick — concrete floor — R.R. siding and truck loading platform — 13 ft. ceiling — very favorable labor market — low rental. Write Childress Chamber of Commerce.

Houston Texas — 30,000 sq. ft. shop—6,468 sq. ft. air cond. office bldg.—on loop highway. Shop 20 ft. clear—shop offices—locker rooms—fluor. lighting—power—gas and air piping—RR siding—80,000 sq. ft. parking—5.96 acres—auto repair bldg.—fences—22 year lease declining rates. Box ID-51.

Available Sites

SUBURBAN ATLANTA — Sites of 3, 5, 10, 25, 50, 100 or more acres. All utilities and rail service in DeKalb County — Georgia's newest industrial area. 70% urban with more than 200 industries in industrial districts and individual tracts. For your new Southeastern plant or warehouse location — inquire and visit through F. Wm. Broome, Industrial Manager, DeKalb County C of C, 250 E. Ponce de Leon Ave., Decatur, Ga. (Atlanta phone, DRake 8-3691).

CANADA — Serviced Industrial Sites & Factories for Lease & Sale — Contact Industrial Commissioner, Richmond Hill, Ontario.

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Middlesex County, N. J. 20 Miles from New York — 50 Miles from Philadelphia. On U. S. No. 1, N. J. Turnpike and mainline P.R.R. Write for Booklet.

Middlesex County Industrial Department
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ATLANTA — Surburban and Metropolitan areas — sites from 1 to 100 acres. All utilities and rail service. For your new southeastern plant or warehouse location we arrange leases and financing. Inquire and visit. 710 Glenn Building. Phone JA. 4-5895. Atlanta, Georgia.

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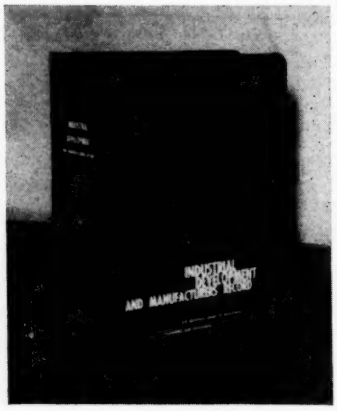

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INDUSTRIAL DEVELOPMENT BRIEFS MANUFACTURERS RECORD

"Step out of your plane . . . and right into your plant." That's the theme being used by developers of the recently announced Bucks County Aero Industrial Park at Doylestown, Pennsylvania. Focal point for the 124-acre project is the modern Bucks County Airport. Surrounding the airport proper will be erected modern plants-to-order on sites ranging from two acres upwards. Marc E. Chaft, president of Skron, Inc., developers of the park, pilots his own company plane. Pointing to the need for an industrial park with an airport, Mr. Chaft noted that key personnel and executives of some 20,000 companies now travel in private planes.

* * *

The University of Arizona's College of Business and Public Administration will sponsor an Industrial Development Workshop on May 20-21. Discussions will center on (1) How have other states and regions approached their development programs? (2) How have techniques and methods changed, and how will they change even more in the next five years? (3) What is the outlook for intra-regional competition? Approximately 500 people are expected to attend. Planning chairman for the workshop is Shaw Livermore, dean of the College of Business.

* * *

Scheduled at Columbus June 1 and 2 is "Ohio's Town Meeting," an event designed as an educational aid "For Balanced Community Development." Robert L. Wolf, director of area development for the Ohio Power Company, Canton, is general chairman of the meeting. He said it has as its objective "to inform and educate Ohioans on what tools are available — what we have and what is necessary — to assist in the community development program." The two-day sessions are being co-sponsored by the Industrial Development Department of the Ohio Chamber of Commerce, the Ohio Department of Industrial and Economic Development, and the Chamber of Commerce Executives of Ohio.

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ASSESSMENT DISTRICTS
SITE EVALUATION
PLANT DESIGN
Millbrae, Calif. Los Angeles, Calif.

INDEX TO PROFESSIONAL AFFILIATIONS

AIDC	American Industrial Devel. Council
AIP	American Industitute of Planners
AMA	American Management Association
ARDA	American Railway Devel. Assn.
ASPDA	Assn. of St. Plan & Devel. Officials
ASPO	Amer. Society of Planning Officials
EEI	Edison Elec. Inst. (Area Dev. Comm.)
GLSIDC	Gt. Lakes Sts. Ind. Devel. Council
NIDA	Northeastern Ind. Devel. Assn.
NIZC	Natl. Industrial Zoning Committee
PNWIDC	Pacific N.W. Ind. Devel. Council
SIDC	Southern Industrial Devel. Council
SIR	Society of Industrial Realtors
ULI	Urban Land Institute

RATE INFORMATION

CLASSIFIED RATES: $4 per line for 1-time insertion, $3 per line for 12-time insertion. Estimate about 40 spaces in each line, allowing for box number.

PROFESSIONAL CARD & SIR RATES: $30 per column inch for 1-time insertion, $23 per column inch for 12-time insertion.

BOX NUMBERS: Publisher will assign box and relay correspondence on a confidential basis if desired.

PROOFS: Not furnished on classified ads.

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The banks of address place trays holding the names of INDUSTRIAL DEVELOPMENT readers represents years of compilation effort. Today, this list includes 16,000 key executives, including more than 8,000 company presidents in the East and Midwest. Write for details of mail service plan whereby you may use these plates to address your direct mail promotion material.

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BRIEFS

DeWitt O. Myatt has been appointed executive director of the Greater Washington Industrial Council. An engineer and a Washington area resident since 1946, Mr. Myott has been active in the Council since its beginnings. He is head of Science Communication, Inc., and Council President John C. Layton said the resources of Mr. Myott's company provide the Council with a considerable range of special capabilities. Mr. Layton added that cooperation on matters of mutual interest has been established with the Metropolitan and Suburban Boards of Trade in Washington.

* * *

An $80 million industrial park, shopping center and residential development will be built on New Jersey Route 50 at the Black Horse Pike in Hamilton Township, Atlantic County, in New Jersey. To be called "Clover Leaf Industrial Park," it will have 1,200 acres laid out for industrial plants, 100 acres for commercial area, and 700 acres for single family residential development. Announcement of the project, upon which initial work has begun, was made by Samuel Buxbaum, a New York attorney and chairman of the board of the Atlantic Development Corporation which has acquired the approximately 2,000 acres.

* * *

Arrowood Acres is a new planned commercial community 10 miles from downtown Charlotte, North Carolina. The tract consists of 2,266 acres, 237 existing buildings covering 800,000 square feet of floor space, and thirteen miles of railroad spur tracks. Electricity, natural gas, city water and sewage are on the property. Officials said that about a dozen concerns already have located manufacturing or distributing operations at Arrowood.

* * *

I.D.'s Regional Representative in Dallas, Pat Hall, recently had an interesting luncheon session with Governor D. Grant Sawyer of Nevada, and Jack Lehman, director of commerce and industry for Nevada. The luncheon, held in Dallas, was one of a series that the Nevada officials are holding in various parts of the country to interest leaders in other states in the industrial potential of Nevada.

COMING IN JULY

THE ROLE OF BANKS IN INDUSTRIAL DEVELOPMENT

AN ANNUAL PROGRESS REPORT BY
INDUSTRIAL DEVELOPMENT MANUFACTURERS RECORD
THE INTERNATIONAL GUIDE TO INDUSTRIAL PLANNING AND EXPANSION

COMING IN AUGUST

THE SECOND ANNUAL CANADIAN PROGRESS REPORT

AN ANNUAL PROGRESS REPORT BY
INDUSTRIAL DEVELOPMENT MANUFACTURERS RECORD
INDUSTRIAL PLANNING AND EXPANSION
THE INTERNATIONAL GUIDE TO

EXPANSION PLANNING INDEX

For prompt assistance with your planning problems, consult these alert advertisers who are represented in this issue of ID-MR:

PLANT LOCATION SERVICES:

Baltimore Gas and Electric Company, Robert J. George, Industrial Development Engineer, 1102 Lexington Building, Baltimore, Maryland. (Ad page 16)

Baltimore and Ohio Railroad Company, Arnath W. Knabe, Manager-Industrial Development, Baltimore and Charles Streets, Baltimore 1, Maryland. (Ad page 11)

Greater Burlington Industrial Corporation, Charles D. Townsend, Executive Director, 191 College Street, Burlington, Vermont. (Ad page 2)

Chesapeake and Ohio Railway, Wayne C. Fletcher, Director-Industrial Development, 1103 C & O Building, Huntington, West Virginia. (Insert between pages 16 & 17)

Delaware Development Commission, Colonel C. B. Shaffer, Director, State House, Dover, Delaware. (Ad 3rd cover)

Far Views Development Company, A. J. Mosby, President, Radio Central Building, Missoula, Montana. (Ad page 3)

Metropolitan Oakland Area, Ken Moeller, Manager-Industrial Department, 1320 Webster Street, Oakland 12, California. (Ad page 57)

Madera Acres, Inc., Jerry Fender, 235 East Yosemite Avenue, Madera, California. (Ad page 62)

New York Central System, W. J. Marshall, Industrial Department, 466 Lexington Avenue, New York, New York. (Ads 2nd cover and page 1)

New York State Department of Commerce, Ronald B. Peterson, Director, 112 State Street, Albany, New York. (Ad page 15)

Nickel Plate Road, C. B. Bennett, Terminal Tower, Cleveland 13, Ohio. (Ad page 4)

Port of Oakland, Dudley W. Frost, Executive Director, Grove Street Pier, Oakland 7, California. (Ad page 59)

Puget Sound Power and Light Company, Stewart G. Neel, Manager-Area Development, 860 Stuart Building, Seattle 1, Washington. (Ad page 69)

St. Petersburg Chamber of Commerce, Jack Bryan, Director of Industrial Development, 4th Street at Third Avenue, St. Petersburg, Florida. (Ad 4th cover)

The South Carolina National Bank, Chauncey W. Lever, Vice President, Columbia, South Carolina. (Ad page 3)

Southern Railway System, B. E. Young, Assistant to President, 15 and K Streets, N. W., Washington 13, D. C. (Ad pages 64 and 65)

Sunnyvale Economic Development Committee, Marion Sellers, Sunnyvale, California. (Ad page 37)

State of Tennessee, Department of Conservation and Commerce, George L. Benedict, Jr., Assistant Commissioner, Cordell Hull Building, Nashville, Tennessee. (Ad page 61)

PLANT CONSTRUCTION AND INDUSTRIAL SERVICES:

A. J. Gerrard and Company, 422 East Touhy Avenue, Des Plaines, Illinois. (Ad page 5)

The Kinnear Manufacturing Company, Wallace Pearson Vice President, 1191 Fields Avenue, Columbus 16, Ohio. (Ad page 38)

OTHER:

American Creosote Works, Inc., For: Waguespack, Pratt, Inc., S. B. Braselman, Jr., Vice President, 1305 Dublin Street, New Orleans, Louisiana. (Ad page 35)

Pinkerton's National Detective Agency, 100 Church Street, New York 7, New York. (Ad page 13)

C. B. Snyder National Realty Company, 41 East 42nd Street, New York 17, New York. (Ad page 2)

Wells Fargo Bank American Trust Company, 4 Montgomery Street, San Francisco, California. (Ad page 40)

ID SECRET SITE SERVICE

There may be sound reasons why you should wish to obtain preliminary information on possible sites without revealing your interest or identity. Recognizing this, INDUSTRIAL DEVELOPMENT offers a Secret Site Service to readers who hold positions of responsibility with manufacturers or other business firms having a legitimate interest in sites. Complete information, including site specification forms, will be sent promptly and confidentially at your request. Address SECRET SITE SERVICE, Conway Publications, Inc., North Atlanta 19, Georgia.

BRIEFS

The American Management Association has announced that its affiliated International Management Association plans to open in July its first overseas center at Sao Paulo, Brazil. It is planned that other such management centers will be opened subsequently in other parts of the world. Each center will serve the management education, training and information needs of the executives of the area exactly as AMA serves the U.S. company and executive.

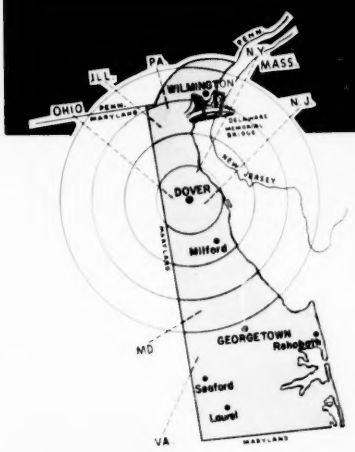
Charles Woodward (center) and Avenir Greig (right), new staff members of the International Management Association's first overseas center in Sao Paulo, Brazil, are shown with IMA President F. E. Pamp, Jr., during a training visit to AMA headquarters in New York.

The IMA centers will be in close liaison with AMA headquarters in New York and will use AMA's resources both in materials and member executives to build its own year-round program to serve the needs of both national and U.S. subsidiary companies. In turn, these centers will be ready to inform AMA in the U.S. of new developments in management abroad in order that the membership exchange on which AMA is founded can be worldwide.

* * *

R. Julian Moore, manager of Basic Management, Inc., has been elected president of the Southern Nevada Industrial Foundation, Inc., a non-profit organization of businessmen and community leaders formed to broaden the area's economic base. Other new officers are Harold G. Laub, president of Southwest Gas Corporation, vice president; Dwight H. Gravett, manager of Eastman Dillion, Union Securities & Company, secretary; Cyril S. Wengert, vice president of Southern Nevada Power Company, treasurer; W. Bruce Beckley, attorney, assistant secretary and treasurer. Andrew V. Ruckman was reappointed managing director.

DELAWARE



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Jack Bryan, Industrial Director **Dept. I. D.** **St. Petersburg, Florida**